

6 NYCRR Part 218, Emissions Standards for Motor Vehicles and Motor Vehicle Engines

Express Terms

(Statutory Authority: Environmental Conservation Law Sections 1-0101, 1-0303, 3-0301, 19-0103, 19-0105, 19-0107, 19-0301, 19-0303, 19-0305, 19-0306-b, 19-1101, 19-1103, 19-1105, 71-2103, 71-2105; Federal Clean Air Act Section 177)

Sections 218-1.1(a) through 218-1.2(bi) remain unchanged.

Section 218-2.1(a) is amended to read:

It is unlawful for any person to sell or register, offer for sale or lease, import, deliver, purchase, rent, lease, acquire or receive a 1993, 1994, 1996 or subsequent model-year, new or used motor vehicle, new motor vehicle engine or motor vehicle with a new motor vehicle engine in the State of New York which is not certified to California emission standards and meets all other applicable requirements of California Code of Regulations, title 13, sections 1956.8, 1956.9, 1960.1, 1960.1.5, 1960.5, 1961, 1961.1, 1961.2, 1961.3, 1961.4, 1962, 1962.1, 1962.2, 1962.3, 1962.4, 1962.5, 1962.6, 1962.7, 1962.8, 1963, 1963.1, 1963.2, 1963.3, 1963.4, 1963.5, 1964, 1965, 1968.1, 1968.2, 1969, 1971.1, 1976, 1978, 2030, 2031, 2047, 2065, 2235 and article 1.5 (see Table 1, section 200.9 of this Title) and is otherwise not in compliance with the Environmental Conservation Law and these departmental regulations. Vehicles that have been certified to standards promulgated pursuant to the authority contained in 42 USC 7521 (see Table 1, section 200.9 of this Title) and that are in the possession of a rental agency in New York that are next rented with a final destination outside of New York will not be deemed as being in violation of this prohibition.

Section 218-2.1(b) through Section 218-2.4 remain unchanged.

Section 218-3.1 is amended to read:

The fleet average nonmethane organic gas exhaust emission values from passenger cars and light-duty trucks produced and delivered for sale in New York by a manufacturer each model-year must not exceed the numbers set forth in California Code of Regulations, title 13, sections 1960.1(g)(2), 1961(b)(1), [and]1961.2, and 1961.4 (see Table 1, section 200.9 of this Title) except as provided in sections 1960.1(g)(2), 1961(b)(1), [and]1961.2, and 1961.4 (see Table 1, section 200.9 of this Title).

The fleet average exhaust emission standards for applicable medium- and heavy-duty engines and vehicles produced and delivered for sale in New York by a manufacturer for each model year must not exceed the values set forth in California Code of Regulations, title 13, sections 1956.8 and 1961.2, (see Table 1, section 200.9 of this Title).

(a) A manufacturer that certifies vehicles equipped with direct ozone reduction technologies will be eligible to receive NMOG credits that can be applied to the NMOG exhaust emissions when determining compliance with the standard. In order to receive credit, the manufacturer must submit an Executive Order from CARB, obtained in accordance with the provisions in California Code of Regulations, title 13, sections 1960.1(g)(1) [and], 1961.2, and 1961.4 (see Table 1, section 200.9 of this Title), which determines the value of such credits for vehicles produced and delivered for sale in New York, when the manufacturer submits its annual year-end NMOG fleet average report.

(b) Credits and debits may be accrued and utilized based upon each manufacturer's sales of vehicles subject to this Part in New York, pursuant to the provisions set forth in California Code of Regulations, title 13, sections 1960.1(g)(2), 1961(b), [and]1961.2, and 1961.4 (see Table 1, section 200.9 of this Title).

Section 218-4.1 is amended to read:

(a) Commencing in model-year 2007, each manufacturer's sales fleet of passenger cars and light-duty trucks,

produced and delivered for sale in New York, must, at minimum, contain at least the same percentage of ZEVs subject to the same requirements set forth in California Code of Regulations, title 13, sections, 1962, 1962.1, [and]1962.2, 1962.3, 1962.4, 1962.5, 1962.6, 1962.7, and 1962.8 (see Table 1, section 200.9 of this Title) using New York specific vehicle numbers.

Section 218-4.1(b) through Subpart 218-12 remain unchanged.

6 NYCRR Part 218, Emission Standards for Motor Vehicles and Motor Vehicle Engines

6 NYCRR Section 200.9, Referenced Material

Express Terms Summary

The New York State Department of Environmental Conservation (Department) is proposing to amend 6 NYCRR Part 218 and Section 200.9. Section 200.9 is a list that cites Federal and California codes and regulations that have been referenced by the Department while amending Part 218. The purpose of the amendment is to incorporate California's Advanced Clean Cars II zero emission and low emission vehicle (ZEV and LEV) regulations. The Department is amending Sections 218-2.1, Prohibitions; 218-3.1, Fleet Average; and 218-4.1, Zero Emission Vehicle Sales Mandate. The remaining Sections in Part 218 are unchanged.

Section 218-2.1(a) is amended to incorporate new ZEV and LEV IV standards.

Section 218-3.1 is amended to incorporate new LEV IV emission standards.

Section 218-4.1 is amended to include new ZEV standards.

6 NYCRR Part 218, Emission Standards for Motor Vehicles and Motor Vehicle Engines

6 NYCRR Part 200, General Provisions

Revised Job Impact Statement

1. Nature of Impact:

The New York State Department of Environmental Conservation (Department) is adopting amendments to 6 NYCRR Section 200.9 and 6 NYCRR Part 218 to incorporate California's Advanced Clean Cars II (ACC II) regulation, which was adopted August 25, 2022, by the California Air Resources Board (CARB). The amendments require increasing annual zero emission vehicle (ZEV) sales requirements starting in model year 2026 and increasing to 100% by model year 2035. The amendments also require new low emission vehicle (LEV IV) criteria pollutant standards for 2026 through 2034 model year internal combustion engine vehicles (ICEV). The proposed ZEV amendments apply to 2026 and subsequent model year light-duty passenger cars (PC), light-duty trucks (LDT), and medium-duty passenger vehicles (MDPV). A MDPV is any medium-duty vehicle less than 10,000 pounds gross vehicle weight rating (GVWR) that is designed primarily for the transportation of persons. The proposed LEV IV amendments apply to 2026 and subsequent model year PC, LDT, MDPV, and medium-duty vehicles (MDV) less than 14,000 pounds GVWR.

The proposed amendments to the regulations may adversely impact jobs and employment opportunities in New York State. New York State has had the California on-road motor vehicle emissions program in effect since model year 1993 for PC and LDT, except for model year 1995, medium-duty vehicles (MDV) since model year 2004, and heavy-duty vehicles (HDV) for model years 2005 through 2007, and adopted heavy-duty Advanced Clean Truck (ACT) standards in 2021. The Department is unaware of any significant adverse impact to jobs and employment opportunities because of previous revisions.

2. Categories and numbers affected:

The proposed revisions may have an adverse impact on businesses involved in manufacturing, selling, servicing, or purchasing PC, LDT, and MDPV. Vehicle manufacturers are expected to incur costs to comply with the regulation. The regulation will require an increasing percentage of light-duty vehicle sales be zero emission vehicles (ZEVs) starting in model year 2026 and reaching 100% of new sales by 2035. The regulation will also require new low emission vehicle (LEV IV) criteria pollutant standards for PC, LDT, and MDPV. The Department is unaware of any final assembly of PC, LDT, or MDV subject to the ACC II regulation in New York State. As a result, no significant job losses in this sector are expected within the State. Most, if not all, vehicle manufacturers will have to allocate resources to produce increasing quantities of ZEVs to meet the 100% sales requirement in 2035, as well as increasing quantities of cleaner internal combustion engine vehicles (ICEV) through model year 2034, to supply the New York market along with associated record keeping, reporting, and warranty costs.

Dealerships will be able to sell California certified vehicles to buyers from states bordering New York. Since vehicles must be California certified to be registered in New York, New York residents will not be able to buy non-complying vehicles out-of-state but may be able to buy complying vehicles out-of-state. These businesses compete within the state and generally are not subject to competition from out-of-state businesses. Therefore, the regulation is not expected to impose a competitive disadvantage on affiliated businesses, and there would be no change from the current relationship with out-of-state businesses.

Ancillary businesses such as gas stations, repair shops, and parts retailers may be adversely impacted as the light-duty vehicle fleet transitions from ICEVs to battery electric and other zero emission propulsion systems. It is anticipated that any losses in these sectors will be offset by increased employment opportunities in fields related to electric vehicle charging infrastructure and training technicians to service new ZEVs.

3. Regions of adverse impact:

None.

4. Minimizing adverse impact:

The regulation attempts to minimize adverse impacts on vehicle manufacturers by offering various compliance flexibility mechanisms. Flexibilities include plug-in hybrid electric vehicle (PHEV) credits, credit banking and trading, proportional fuel cell electric vehicle (FCEV) values, historical credits, pooling, early compliance credits, environmental justice credits, and simplified ZEV credit accounting.

The regulation is not expected to have adverse impacts on vehicle dealers. Dealerships will be required to ensure that the vehicles they sell are California certified. Starting with the 1993 model year for light-duty vehicles and the 2004 model year for medium-duty vehicles, most manufacturers have included provisions in their ordering mechanisms to ensure that only California certified vehicles are shipped to New York dealers. The implementation of the regulation is not expected to be burdensome in terms of additional reporting requirements for dealers. There would be no change in the competitive relationship with out-of-state businesses.

5. Self-employment opportunities:

None that the Department is aware of at this time.

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6 NYCRR Part 200, General Provisions

Revised Rural Area Flexibility Analysis

1. Types and estimated numbers of rural areas:

The New York State Department of Environmental Conservation (Department) is proposing amendments to 6 NYCRR Section 200.9 and 6 NYCRR Part 218 to incorporate California's Advanced Clean Cars II (ACC II) regulation, which was adopted August 25, 2022, by the California Air Resources Board (CARB). The proposed ZEV amendments apply to 2026 and subsequent model year light-duty passenger cars (PC), light-duty trucks (LDT), and medium-duty passenger vehicles (MDPV). A MDPV is any medium-duty vehicle less than 10,000 pounds gross vehicle weight rating (GVWR) that is designed primarily for the transportation of persons. The proposed LEV IV amendments apply to 2026 and subsequent model year PC, LDT, MDPV, and medium-duty vehicles (MDV) less than 14,000 pounds GVWR.

There are no requirements in the proposed regulation which apply only to rural areas. The regulation will require an increasing percentage of light-duty vehicle sales be zero emission vehicles (ZEVs) starting in model year 2026 and reaching 100% of new sales by 2035. The regulation will also require new low emission vehicle (LEV IV) criteria pollutant standards through model year 2034 for PC, LDT, and MDPV. The proposed revisions may have an adverse impact on businesses involved in manufacturing, selling, servicing, or purchasing light-duty vehicles.

New York State has had the California on-road motor vehicle emissions program in effect since model year 1993 for passenger cars and light-duty trucks, except for model year 1995, medium-duty vehicles since model year 2004, and heavy-duty vehicles for model years 2005 through 2007; the Department is unaware of any adverse impact to rural areas as a result. The beneficial emission reductions from the program accrue to all areas

of the state.

2. Reporting, record keeping, other compliance requirements, and professional services:

There are no specific requirements in the proposed regulation which apply exclusively to rural areas. The regulation is not expected to have adverse impacts on vehicle dealers. Dealerships will be required to ensure that the vehicles they sell are California certified. Starting with the 1993 model year for light-duty vehicles and the 2004 model year for medium-duty vehicles, most manufacturers have included provisions in their ordering mechanisms to ensure that only California certified vehicles are shipped to New York dealers. The implementation of the regulation is not expected to be burdensome in terms of additional reporting requirements for dealers.

3. Costs:

The proposed revisions are expected to result in additional costs for New York State purchasers of PC, LDT, and MDPV. Vehicle purchasers will face increased upfront purchase costs for new zero emission vehicles (ZEV), primarily from the cost of battery packs. Increased ZEV purchase costs are expected to be offset in part by state and federal purchase rebates and reduced operation and maintenance costs relative to gasoline and diesel fueled vehicles.

The ACCII ZEV regulation would require OEMs to comply with the annual ZEV sales percentage requirement by producing and selling ZEVs in New York. The cost of producing ZEVs is currently greater than the cost of producing traditional internal combustion engine vehicles (ICEVs) due to increased component and manufacturing costs. Manufacturing ZEVs requires large upfront costs related to research and development, prototyping, assembly line upgrades and tooling, and other categories. It is expected that increased OEM costs will be passed on to consumers in the form of higher purchase prices. The proposed LEV IV revisions would not have any associated costs beyond those estimated for LEV III standards adopted in 2012 as part of the ACC I

rulemaking. The reason for this is that the existing LEV III standards adopted under ACC I require all ICEV to be SULEV 30 emissions by 2025.

4. Minimizing adverse impact:

The proposed changes apply statewide. The regulation attempts to minimize adverse impacts on vehicle manufacturers by offering various compliance flexibility mechanisms. Flexibilities include plug-in hybrid electric vehicle (PHEV) credits, credit banking and trading, proportional fuel cell electric vehicle (FCEV) values, historical credits, pooling, early compliance credits, environmental justice credits, and simplified ZEV credit accounting.

The regulation is not expected to have adverse impacts on vehicle dealers. Dealerships will be required to ensure that the vehicles they sell are California certified. Starting with the 1993 model year for light-duty vehicles and the 2004 model year for medium-duty vehicles, most manufacturers have included provisions in their ordering mechanisms to ensure that only California certified vehicles are shipped to New York dealers. The implementation of the regulation is not expected to be burdensome in terms of additional reporting requirements for dealers. There would be no change in the competitive relationship with out-of-state businesses.

5. Rural area participation:

The Department will hold a virtual public hearing to provide information on the proposed regulation and solicit public comments. Additionally, there will be a public comment period in which interested parties may submit written comments.

6 NYCRR Part 218, Emission Standards for Motor Vehicles and Motor Vehicle Engines

6 NYCRR Part 200, General Provisions

Revised Regulatory Flexibility Analysis for Small Businesses and Local Governments

1. Effect of rule:

The New York State Department of Environmental Conservation (Department) is proposing amendments to 6 NYCRR Section 200.9 and 6 NYCRR Part 218 to incorporate California's Advanced Clean Cars II (ACC II) regulation, which was adopted August 25, 2022, by the California Air Resources Board (CARB). The amendments require increasing annual zero emission vehicle (ZEV) sales requirements starting in model year 2026 and increasing to 100% by model year 2035. The amendments also require new low emission vehicle (LEV IV) criteria pollutant standards for 2026 through 2034 model year internal combustion engine vehicles (ICEV). The proposed ZEV amendments apply to 2026 and subsequent model year light-duty passenger cars (PC), light-duty trucks (LDT), and medium-duty passenger vehicles (MDPV). A MDPV is any medium-duty vehicle less than 10,000 pounds gross vehicle weight rating (GVWR) that is designed primarily for the transportation of persons. The proposed LEV IV amendments apply to 2026 and subsequent model year PC, LDT, MDPV, and medium-duty vehicles (MDV) less than 14,000 pounds GVWR. The proposed revisions may have an adverse impact on businesses involved in manufacturing, selling, servicing, or purchasing medium- and heavy-duty vehicles.

State and local governments are also consumers of PC, LDT, and MDPV that will be regulated under the proposed amendments. Therefore, local governments who own or operate vehicles in New York State are subject to the same requirements as owners of private vehicles in New York State. The proposed changes are revisions to the current ZEV and LEV III standards. New York State has had the California on-road motor vehicle emissions program in effect since model year 1993 for passenger cars and light-duty trucks, except for model

year 1995, medium-duty vehicles since model year 2004, and heavy-duty vehicles for model years 2005 through 2007 and the Department is unaware of any adverse impact to small businesses or local governments as a result of previous revisions. Section 177 of the federal Clean Air Act requires New York to maintain standards identical to California's to maintain the LEV program.

2. Compliance requirements:

There are no specific requirements in the proposed regulation which apply exclusively to small businesses. Dealerships will be required to ensure that the vehicles they sell are California certified. Starting with the 1993 model year for light-duty vehicles and the 2004 model year for medium-duty vehicles, most manufacturers have included provisions in their ordering mechanisms to ensure that only California certified vehicles are shipped to New York dealers. The implementation of the regulation is not expected to be burdensome in terms of additional reporting requirements for dealers.

3. Professional services:

There are no professional services needed by small business or local government to comply with the proposed rule.

4. Compliance costs:

The proposed revisions are expected to result in additional costs for New York State purchasers of PC, LDT, and MDPV. Vehicle purchasers will face increased upfront purchase costs for new zero emission vehicles (ZEV), primarily from the cost of battery packs. Increased ZEV purchase costs are expected to be offset in part by state and federal purchase rebates and reduced operation and maintenance costs relative to gasoline and diesel fueled vehicles.

The ACCII ZEV regulation would require OEMs to comply with the annual ZEV sales percentage requirement by producing and selling ZEVs in New York. The cost of producing ZEVs is currently greater than the cost of producing traditional internal combustion engine vehicles (ICEVs) due to increased component and manufacturing costs. Manufacturing ZEVs requires large upfront costs related to research and development, prototyping, assembly line upgrades and tooling, and other categories. It is expected that increased OEM costs will be passed on to consumers in the form of higher purchase prices. The proposed LEV IV revisions would not have any associated costs beyond those estimated for LEV III standards adopted in 2012 as part of the ACC I rulemaking. The reason for this is that the existing LEV III standards adopted under ACC I require all ICEV to be SULEV 30 emissions by 2025.

New York State currently maintains personnel and equipment to administer the LEV program. No additional costs will be incurred by local governments for the administration of this program.

5. Economic and technological feasibility:

There are numerous models of passenger car, and light-duty trucks from several manufacturers currently available. It is expected that a growing number of ZEVs across all vehicle classes, including light-duty pickup trucks, will become suitable for more applications as technology advances.

The proposed amendments would reduce costs to the state's overall fleet as the savings from reduced operational costs of ZEVs significantly outweigh the higher upfront vehicle purchase price (without application of incentives) and infrastructure costs. For battery-electric vehicles, the total cost of ownership is lower compared to internal combustion engine vehicles. Cost parity is anticipated to be achieved for a growing number of classes by 2035 as battery prices fall and technology improves. Federal and state incentives are currently available to offset some of the higher vehicle capital costs and some of the early infrastructure costs to

help consumers transition to ZEVs now.

Several incentive programs are available to support the purchase and use of advanced technologies administered by state agencies, federal agencies, and local air districts. Programs include the New York Drive Clean Rebate program administered by the New York State Energy and Research Development Authority (NYSERDA), the Climate Smart Communities program administered by the Department's Office of Climate Change, the Clean Pass program administered by the New York State Departments of Motor Vehicles (DMV) and Transportation (DOT), and the Green Pass program operated by the New York State Thruway Authority. Currently, The Drive Clean Rebate program offers point-of-sale rebates of up to \$2,000 towards the purchase or lease of eligible vehicles. Rebates are currently available on over sixty plug-in electric vehicle models. The Department's Climate Smart Communities program offers rebates of up to \$5,000 for each electric vehicle purchased by municipalities. The Climate Smart Communities program also offers grants of up to \$250,000 per location for municipalities to purchase and install electric vehicle charging or hydrogen refueling infrastructure. The Clean Pass program allows the owners of eligible plug-in electric vehicles to operate solo in the high-occupancy vehicle lane of the Long Island Expressway. The Green Pass program offers discounted tolls on bridges and tunnels in the New York Metropolitan area.

The New York State Public Service Commission has also approved a Light-Duty EV Make-Ready Program. The Program covers up to 100 percent of utility-side electric infrastructure make-ready costs associated with non-residential EV charging in disadvantaged communities. The incentives cover up to 90 percent of the utility-side make-ready costs outside of disadvantaged communities.

6. Minimizing adverse impact:

The proposed changes apply statewide. The regulation attempts to minimize adverse impacts on vehicle

manufacturers by offering various compliance flexibility mechanisms. Flexibilities include plug-in hybrid electric vehicle (PHEV) credits, credit banking and trading, proportional fuel cell electric vehicle (FCEV) values, historical credits, pooling, early compliance credits, environmental justice credits, and simplified ZEV credit accounting.

The regulation is not expected to have adverse impacts on vehicle dealers. Dealerships will be required to ensure that the vehicles they sell are California certified. Starting with the 1993 model year for light-duty vehicles and the 2004 model year for medium-duty vehicles, most manufacturers have included provisions in their ordering mechanisms to ensure that only California certified vehicles are shipped to New York dealers. The implementation of the regulation is not expected to be burdensome in terms of additional reporting requirements for dealers. There would be no change in the competitive relationship with out-of-state businesses.

There will be no adverse impact on local governments who own or operate vehicles in the state because they are subject to the same requirements as those imposed on owners of private vehicles. This rulemaking is not a local government mandate pursuant to Executive Order 17. This regulation contains exemptions for emergency vehicles, and military tactical vehicles and equipment.

7. Small business and local government participation:

The Department will hold a virtual public hearing on the proposed amendments and solicit public comments. Small businesses and local governments will have the opportunity to attend this public hearing. Additionally, there will be a public comment period in which interested parties including small businesses and local governments may submit written comments.

8. For rules that either establish or modify a violation or penalties associated with a violation:

In accordance with NYS State Administrative Procedures Act (SAPA) Section 202-b, this rulemaking does not include a cure period because the Department is undertaking this rulemaking to maintain identity with Section 177 of the Clean Air Act.

Regulatory Impact Statement

6 NYCRR Part 218, Emissions Standards for Motor Vehicles and Motor Vehicle Engines

6 NYCRR Part 200, General Provisions

I. INTRODUCTION

The New York State Department of Environmental Conservation (DEC or the Department) proposes to amend Title 6 of the New York Codes, Rules and Regulations (NYCRR) Part 218, “Emissions Standards for Motor Vehicles and Motor Vehicle Engines,” and Part 200, “General Provisions” (collectively, Part 218). These amendments will further the goals of reducing air pollution from motor vehicles by incorporating the State of California’s Advanced Clean Cars II (ACC II) regulation for light-duty and medium-duty passenger vehicles. The amendments are also consistent with the requirements of New York’s Climate Leadership and Community Protection Act, Chapter 106 of the Laws of 2019 (CLCPA), to further reduce greenhouse gas (GHG) emissions in the State.

The proposed amendments establish new zero emission vehicle (ZEV) and low emission vehicle (LEV IV) standards. The ZEV amendments include an annual ZEV manufacturer’s sales requirement, minimum technical requirements, ZEV assurance measures, regulatory flexibilities, and simplified credit accounting. The LEV IV amendments remove ZEVs from the fleet average NMOG+NO_x (non-methane organic gas + oxides of nitrogen) standard, increase the stringency of emission certification standards, increase the stringency for cold-start emission standards, increase the stringency of evaporative emission standards, and revise standards for medium-duty vehicles to reduce emissions from towing and aggressive driving conditions. The proposed ZEV

amendments apply to 2026 and subsequent model year light-duty passenger cars (PC), light-duty trucks (LDT), and medium-duty passenger vehicles (MDPV). A MDPV is any medium-duty vehicle less than 10,000 pounds gross vehicle weight rating (GVWR) that is designed primarily for the transportation of persons. The proposed LEV IV amendments apply to 2026 and subsequent model year PC, LDT, MDPV, and medium-duty vehicles (MDV) less than 14,000 pounds GVWR.

Following adoption, the Department will be required to incorporate the revisions to Part 218 and the attendant revisions to Part 200 into New York's State Implementation Plan (SIP) and provide the revised SIP to the United States Environmental Protection Agency (EPA) for review and approval.

II. STATUTORY AUTHORITY

The statutory authority for this amendment is found in the New York State Environmental Conservation Law (ECL), sections 1-0101, 1-0303, 3-0301, 19-0103, 19-0105, 19-0107, 19-0301, 19-0303, 19-0305, 19-0306-b, 19-1101, 19-1103, 19-1105, 71-2103, 71-2105 and section 177 of the federal Clean Air Act (CAA) (42 USC 7507).

ECL section 1-0101(1) outlines the policy declaration for the Department regarding the protection of New York State's environment and natural resources including the control of "air pollution, in order to enhance the health, safety and welfare of the people of the state and their overall economic and social wellbeing." Section 1-0101(3)(e) states:

It shall... be the policy of the state to foster, promote, create and maintain

conditions under which man and nature can thrive in harmony with each other, and achieve social, economic and technological progress for present and future generations by... [p]roviding that care is taken for the air... and other resources that are shared with the other states of the United States and with Canada in the manner of a good neighbor.

ECL section 1-0303(19) defines “pollution” as:

the presence in the environment of conditions and or contaminants in quantities of characteristics which are or may be injurious to human, plant or animal life or to property or which unreasonably interfere with the comfortable enjoyment of life and property throughout such areas of the state as shall be affected thereby.

ECL section 3-0301(1)(a) gives the Commissioner authority to “[c]oordinate and develop policies, planning and programs related to the environment of the state and regions thereof...” Pursuant to section 3-0301(1)(b) of the ECL, the Commissioner is charged with promoting and protecting the air resources of New York including providing for the prevention and abatement of air pollution.

ECL section 3-0301(2)(a) authorizes the Commissioner to adopt rules and regulations to carry out the purposes and provisions of the ECL. Section 3-0301(2)(g) allows the Commissioner to enter and inspect sources of air pollution and to verify compliance. Section 3-0301(2)(m) gives

the Commissioner authority to “adopt rules, regulations, and procedures as may be necessary, convenient, or desirable to effectuate the purposes of this chapter.” Under Section 3-0301(2)(n) of the ECL, the Commissioner has the authority to “study, monitor, control and regulate pollution from motor vehicle exhaust emissions.” The Commissioner’s authority under Section 3-0301(2)(n) is expressly granted to further the State’s policy to “[c]onserve, improve and protect its natural resources and environment and control . . . air pollution, in order to enhance the health, safety and welfare of the people of the state . . . ”

ECL section 19-0103 is a declaration of the State’s policy with specific reference to air pollution. ECL section 19-0103 states:

It is declared to be the policy of the State of New York to maintain a reasonable degree of purity of the air resources of the State . . . and to that end to require the use of all available practical and reasonable methods to prevent and control air pollution.

ECL section 19-0105 sets out the purpose of Article 19, “to safeguard the air resources of the State from pollution” consistent with the policy expressed in section 19-0103 and in accordance with other provisions of Article 19.

ECL section 19-0107(2) defines “air contaminant” as “a dust, fume, gas, mist, odor, smoke, vapor, pollen, noise or any combination thereof.” ECL Section 19-0107(4) defines “air contamination” as “the presence in the outdoor atmosphere of one or more air contaminants which

contribute or which are likely to contribute to a condition of air pollution.” ECL Section 19-0107(3) defines “air pollution” as:

the presence in the outdoor atmosphere of one or more air contaminants in quantities, of characteristics and of a duration which are injurious to human, plant or animal life or to property or which unreasonably interfere with the comfortable enjoyment of life and property throughout the state or throughout such areas of the state as shall be affected thereby...

ECL section 19-0107(5) defines “air contamination source” and specifically includes motor vehicles in the definition.

ECL section 19-0301(1)(a) states that consistent with the policy of the state, as it is declared in section 19-0103, the Department shall have power to formulate, adopt and promulgate, amend and repeal codes and rules and regulations for preventing, controlling or prohibiting air pollution in such areas of the state as shall or may be affected by air pollution. ECL section 19-0301(1)(b) further authorizes the Department to include in any such codes and rules and regulations provisions establishing areas of the state and prescribing for such areas: the degree of air pollution or air contamination that may be permitted therein and the extent to which air contaminants may be emitted to the air by any air contamination source.

ECL section 19-0301(2)(a) provides that it shall be the duty and responsibility of the Department to prepare and develop a general comprehensive plan for the control or abatement of

existing air pollution and for the control or prevention of any new air pollution recognizing various requirements for different areas of the state.

ECL section 19-0303 provides that the terms of any air pollution control regulation promulgated by the Department may differentiate between particular types and conditions of air pollution and air contamination sources, and the Department may recognize the difference in the State's air quality areas in its rulemaking. This section also provides that a code, rule or regulation or any amendment or repeal thereof will not be adopted until after a public hearing is held and may not become effective until filed with the Secretary of State. Finally, this section prescribes procedures for adopting any code, rule or regulation which contains a requirement that is more stringent than the federal CAA or regulations issued pursuant to the Act by the EPA.

ECL section 19-0305 provides the Commissioner with enforcement power. Section 19-0305(1) states “[t]he commissioner is hereby authorized to enforce the codes, rules and regulations of the departments established in accordance with this article.” In addition, pursuant to section 19-0305(2)(1) the Commissioner may “do such other things as he may deem necessary, proper or desirable in order that he may enforce codes, rules or regulations which have been promulgated under this article.”

ECL section 19-0306-b establishes, among other things, State zero-emissions goal for cars and trucks, including one hundred percent of in-state sales of new passenger cars and trucks shall be zero-emissions by two thousand thirty-five, medium-duty and heavy-duty vehicles by two thousand forty-five and off-road vehicles and equipment by two thousand thirty-five.

ECL sections 19-1101, 19-1103, and 19-1105 set forth the provisions for environmental performance labels and authorizes the Commissioner to promulgate rules and regulations specifying labeling requirements and implementing such requirements.

ECL sections 71-2103 and 71-2105 set forth the civil and criminal penalty structures for violations of Article 19 and regulations promulgated pursuant to Article 19.

In addition to the above New York State authority, section 177 of the Act permits states other than California to adopt and enforce standards for motor vehicle emissions, provided that such standards are identical to California's standards.

III. LEGISLATIVE OBJECTIVES

Articles 1 and 3 of the ECL set out the overall State policy goal of reducing air pollution and providing clean, healthy air for the citizens of New York. They provide the Department and Commissioner the general authority to adopt and enforce measures to accomplish those goals, including the regulation of mobile sources of air pollution.

In addition to the general powers and duties of the Department and Commissioner to prevent and control air pollution found in Articles 1 and 3 of the ECL, Article 19 of the ECL was specifically adopted for the purpose of safeguarding the air resources of New York from pollution. To facilitate this purpose, the Legislature bestowed specific powers and duties on the Department, including the power to formulate, adopt, promulgate, amend, repeal, and enforce regulations for

preventing, controlling and prohibiting air pollution. The Department is “expressly authorized to promulgate extensive regulations limiting exhaust emissions from motor vehicles including adoption of California certification standards.”¹ This authority also specifically includes promulgating rules and regulations for preventing, controlling or prohibiting air pollution in such areas of the State that shall or may be affected by air pollution, and provisions establishing areas of the State and prescribing for such areas (1) the degree of air pollution or air contamination that may be permitted therein, and (2) the extent to which air contaminants may be emitted to the air by any air contamination source. In addition, this authority also includes the preparation of a general comprehensive plan or the control or abatement of existing air pollution and for the control or prevention of any new air pollution recognizing various requirements for different areas of the State.

In choosing to adopt and implement California standards, Section 177 states are limited to adopting identical emission standards and may not create an undue burden on a manufacturer by either preventing the sale of a car certified to California standards, or by requiring the creation of a “third vehicle.” Since the early 1990’s, New York has chosen to adopt California’s more stringent motor vehicle standards to obtain emission reductions from new motor vehicles not provided by federal new motor vehicle standards, in furtherance of the Department’s mission and obligation to control air pollution.

In addition, the CLCPA contains numerous requirements regarding climate change and the reduction of GHG emissions. For example, the CLCPA contains a new ECL Article 75, which

¹ MVMA v. Jorling, 152 Misc.2d 405 (N.Y. Sup. September 3, 1991).

among other things requires a 40 percent reduction in Statewide GHG emissions from 1990 levels by 2030, and an 85 percent reduction from 1990 levels by 2050. See also 6 NYCRR Part 496 (Part 496). The CLCPA emphasizes reducing GHG emissions and co-pollutants in disadvantaged communities including requiring all state agencies to avoid disproportionately burdening disadvantaged communities when considering and issuing permits, licenses, and other administrative approvals and decisions. See, e.g. ECL 75-0109(3)(c); CLCPA § 7(3). By January 1, 2024, the CLCPA requires the Department to promulgate regulations to ensure compliance with the Statewide GHG emission limits. ECL § 75-0109. The amendments are consistent with the CLCPA because they will further reduce GHG emissions from motor vehicles.

Based on the above, the Commissioner has very broad authority to regulate air pollution, including emissions from motor vehicles. The Department is proposing to adopt California's ACC II Standards for PC, LDT, MDPV, and MDV. This regulation package will further the goals of reducing air pollution from motor vehicles by requiring stricter emissions standards and emissions-related requirements for PC, LDT, MDPV, and MDV.

IV. NEEDS AND BENEFITS

Given that the proposed amendments will further reduce GHG emissions, they are consistent with the requirements of the CLCPA. New York has made considerable progress in improving its air quality and addressing climate change, with GHG emissions falling 12 percent since 1990, when measured per the requirements of the CLCPA and Part 496. Most of New York's GHG reductions have come from the electricity sector, which have decreased more than 45 percent since

1990.² However, GHG emissions from the transportation sector have risen 9 percent from 1990 levels.

The CLCPA defines “carbon dioxide equivalent” (CO₂e) as a measurement of global warming potential (GWP) based on a twenty-year timeframe (GWP20), rather than a one-hundred-year timeframe (GWP100). The EPA 2017 National Emissions Inventory estimates that on-road light- and medium-duty vehicles emitted approximately 49.9 million tons of GHG (when measured in CO₂e GWP100, rather than the GWP20 required by the CLCPA).³ Using a GWP20 as required by the CLCPA would likely result in these emissions being greater. The transportation sector accounts for approximately 28 percent, and growing, of all GHG emissions in New York State when measured pursuant to the CLCPA and Part 496.⁴ Light- and medium-duty vehicles account for approximately 79.5 percent of all on-road transportation sector GHG emissions, when measured pursuant to the CLCPA and Part 496.⁵

The Department is also tasked with mitigating the effects of criteria pollutants. A portion of New York State still does not meet federal health-based national ambient air quality standards (NAAQS) for ozone and has been categorized as a non-attainment area.⁶ Motor vehicles are responsible for a significant portion of urban air pollution by emitting carbon dioxide (CO₂),

² NYS Statewide GHG Emissions Report, 1990-2019, developed under ECL sec. 75-0105, <https://www.dec.ny.gov/energy/99223.html>

³ EPA, 2017 National Emissions Inventory (NEI) Data, <https://www.epa.gov/air-emissions-inventories/2017-national-emissions-inventory-nei-data>

⁴ NYS Statewide GHG Emissions Report, 1990-2019, developed under ECL sec. 75-0105, see <https://www.dec.ny.gov/energy/99223.html>

⁵ NYS Statewide GHG Emissions Report, 1990-2019, developed under ECL sec. 75-0105, see <https://www.dec.ny.gov/energy/99223.html>

⁶ U.S. Environmental Protection Agency, Nonattainment Areas for Criteria Pollutants (Green Book), May 31, 2021, <https://www3.epa.gov/airquality/greenbook/hbstateb.html>

carbon monoxide (CO), hydrocarbons (HC), nitrogen oxides (NO_x), particulate matter (PM), as well as mobile source air toxics such as benzene, formaldehyde, acetaldehyde, 1,3-butadiene and lead.⁷ Some of these emissions are ozone precursors that lead to ground-level ozone formation. Ground-level ozone is formed by photochemical reactions when emissions of NO_x and volatile organic compounds mix under sunny, hot conditions.

Light- and medium-duty vehicles are major contributors of ozone precursors. It is estimated that on-road light- and medium-duty vehicles emitted approximately 40,765 tons of NO_x and 3,345 tons of PM_{2.5} in New York State in 2017.⁸ PC, LDT, MDPV, and MDV account for approximately 46 percent⁹ of the total on-road vehicle NO_x emissions. In some urban settings, the number of on-road vehicles has the biggest impact on localized NO_x and PM_{2.5} concentrations. It is essential that the Department continue to adopt stringent mobile source emission standards and regulations to protect human health and the environment.

Tailpipe emissions resulting from fossil fuel combustion pose a major threat to children's health and wellbeing with impacts such as "impairment of cognitive and behavioral development, respiratory illnesses, and other chronic diseases."¹⁰ Ground-level ozone can also impair lung function in otherwise healthy people. This can result in significant hospitalization costs and

⁷ See Health Effects Inst., Special Report 17, Traffic-Related Air Pollution: A Critical Review of the Literature on Emissions, Exposure, and Health Effects at vii (2010), <https://www.healtheffects.org/system/files/SR17TrafficReview.pdf>

⁸ U.S. Environmental Protection Agency, 2017 National Emissions Inventory (NEI) Data, <https://www.epa.gov/air-emissions-inventories/2017-national-emissions-inventory-nei-data>

⁹ EPA, 2017 National Emissions Inventory (NEI) Data, <https://www.epa.gov/air-emissions-inventories/2017-national-emissions-inventory-nei-data>

¹⁰ Frederica Perera, Pollution from Fossil-Fuel Combustion is the Leading Environmental Threat to Global Pediatric Health and Equity: Solutions Exist, 15 Int'l J. Env'tl. Res. & Public Health 1, 1 (2018), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5800116/>

mortality rates, both of which are higher in New York State than the national average.¹¹ Research indicates that “ambient air pollution is the leading environmental health risk factor globally” and New York ranks eleventh among major cities for deaths attributable to transportation emissions, with 24.4 percent of PM and ozone related deaths being transport-attributable.¹² PM_{2.5} emissions from on-road mobile sources in the New York City region contribute to approximately 320 deaths and 870 hospitalizations and emergency department visits.

The effects of motor vehicle emissions disproportionately affect those who live, work, or attend school near major roads resulting in increased incidence rate and severity of health issues associated with air pollution from vehicle emissions such as “higher rates of asthma onset and aggravation, cardiovascular disease, impaired lung development in children, pre-term and low-birthweight infants, childhood leukemia, and premature death.”¹³ Those included in this higher risk group include children, older adults, people with pre-existing pulmonary disease, and people of low socioeconomic status.

Climate change is having adverse impacts on human health and the environment. These impacts include increased heat illnesses and mortality, respiratory illnesses from increased formation of ground-level ozone, and the introduction or spread of vector-borne illnesses. Climate change is adversely impacting New York State’s shoreline, drinking water sources, agriculture,

¹¹ New York State Department of Health, New York State Asthma Surveillance Summary Report, October 2013, p. 16, http://www.health.ny.gov/statistics/ny_asthma/

¹² Susan Anenberg et al., Int’l Council on Clean Transportation, A Global Snapshot of the Air Pollution-Related Health Impacts of Transportation Sector Emissions in 2010 and 2015 at i (2019), https://theicct.org/sites/default/files/publications/Global_health_impacts_transport_emissions_2010-2015_20190226.pdf

¹³ EPA, Near Roadway Air Pollution and Health: Frequently Asked Questions, p. 2, https://www.epa.gov/sites/production/files/2015-11/documents/420f14044_0.pdf

forests, and wildlife diversity. Climate change trends such as rising temperatures, rising sea levels, and increased frequency of intense precipitation events have already been observed.¹⁴ These trends are expected to continue throughout the century.

New York State has established ambitious climate change goals and requirements intended to mitigate or avoid the adverse impacts of climate change. The CLCPA puts New York on the path to carbon neutrality with the nation's most aggressive GHG reduction requirements. The CLCPA's targets include 70 percent renewable energy by 2030, 100 percent zero emission energy by 2040, and 85 percent reduction in GHG emissions from 1990 levels by 2050. The CLCPA established a 22-member Climate Action Council (CAC) charged with the development of a Scoping Plan to address the State's bold clean energy and climate agenda. Transportation is New York's largest source of GHG emissions. Meeting CLCPA targets requires the adoption of electric technologies in the transportation sector, such as electric passenger vehicles, trucks, and buses. On May 3, 2021, the Transportation Advisory Panel (TAP) provided the CAC with a list of recommended strategies that included the adoption of California zero-emission vehicle sales regulations for passenger vehicles, trucks, buses, and heavy equipment.¹⁵

ACC II Zero Emission Vehicle Standards

New York is proposing to revise Part 218 to incorporate California's ACC II regulation package, adopted by California on August 25, 2022, consisting of regulations intended to reduce

¹⁴ NYSERDA, Responding to Climate Change in New York State, November 2011, <https://www.nyserda.ny.gov/About/Publications/Research-and-Development-Technical-Reports/Environmental-Research-and-Development-Technical-Reports/Response-to-Climate-Change-in-New-York>

¹⁵ Climate Action Council, Transportation Advisory Panel, Recommended Strategies, May 3, 2021, <https://climate.ny.gov/-/media/CLCPA/Files/2021-05-03-Transportation-Recommendations.pdf>

GHG and NMOG + NOx emissions from light- and medium-duty on-road vehicles. The proposed ZEV revisions include the following elements:

- Increasing vehicle manufacturer’s annual ZEV sales requirement
- Minimum technical requirements for ZEV and plug-in hybrid electric vehicles (PHEV)
- ZEV assurance measures
- Regulatory flexibilities for vehicle manufacturers
- Simplified ZEV credit accounting

ZEV Annual Sales Percentage Requirement

Starting with model year 2026, vehicle manufacturers, also known as original equipment manufacturers (OEMs), will be required to deliver an increasing annual percentage of their sales that are ZEVs or PHEVs. This percentage requirement will start at 35% of sales starting with model year 2026 and increase to 100% of sales for 2035 and subsequent model years.¹⁶ Small volume manufacturers, defined as having average California annual sales less than 4,500 vehicles, will be required to meet the 100% ZEV requirement in model year 2035. The annual sales percentage requirements are shown in the following table.

Table 1: ZEV Sales Percentage Requirements for 2026 and Subsequent Model Years

Model Year	ZEV Sales Percentage Requirement
2026	35%

¹⁶ CARB, Advanced Clean Cars II Staff Report: Initial Statement of Reasons (ISOR), Figure 5., p. 40, April 12, 2022. <https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/accii/isor.pdf>

2027	43%
2028	51%
2029	59%
2030	68%
2031	76%
2032	82%
2033	88%
2034	94%
2035+	100%

PHEVs may be used to meet a portion of an OEM’s annual ZEV sales requirement. PHEVs may be used to meet up to 20% of the annual ZEV sales requirement provided they meet minimum technical requirements (discussed below). The use of PHEVs to meet part of the annual ZEV requirement in ACC II will sunset following the 2035 model year in New York. New York State legislation signed by Governor Hochul in 2021 (Chapter 423, Laws of 2021) commits 100% of all new, light-duty on-road vehicle sales in New York to be ZEVs by 2035 and directs the Department to develop and propose regulations like this ACC II proposal to help meet this target. ECL § 19-0306-b. The sales commitment also aligns with the requirements of the CLCPA.

Minimum Technical Requirements for ZEVs and PHEVs

ZEVs will be required to meet minimum technical requirements to earn ZEV credits under ACC II. ZEVs must have a minimum all-electric range (AER) of at least 150 miles. ZEVs may be either battery electric vehicles (BEVs) or hydrogen fuel cell electric vehicles (FCEVs). BEVs

must be capable of fast charging using inlets that meet the Society of Automotive Engineers (SAE) J1772 Combined Charging Standard (CCS). BEVs must also be equipped with a minimum 5.76 kilowatt (kW) on-board charger and a 20-foot convenience cord certified to Underwriter Laboratory (UL) 2594 standards. The convenience cord must be capable of Level 1 and Level 2 charging. ZEVs must also meet the ZEV assurance measures discussed below to be eligible to earn ZEV credits.

PHEVs will also be required to meet minimum technical requirements to earn credits towards an OEM's annual ZEV requirement under ACC II. Eligible PHEVs must have a minimum AER of 50 miles and be capable of doing at least 40 miles on an aggressive drive cycle. PHEVs must also be certified to super ultra-low emission vehicle (SULEV) standards and be covered by a 15 year or 150,000 mile warranty. They must also be equipped with a minimum 5.76 kW on-board charger and a 20-foot convenience cord certified to UL 2594 standards. PHEVs must also meet the ZEV assurance measures discussed below to be eligible to earn ZEV credits.

ZEV Assurance Measures

The proposed ACC II ZEV amendments include ZEV assurance measures consisting of durability, warranty, service information/standardized data parameters, and battery label requirements. The intent of the ZEV assurance measures is to require ZEVs and PHEVs to meet durability and assurance requirements like those required for conventional internal combustion engine vehicles (ICEVs). The ZEV assurance measures will ensure that ZEVs retain functionality and reliability as ICEVs are transitioned out of the on-road fleet.

The proposed durability measure will require 2026 through 2029 model year BEVs and FCEVs to be designed to retain at least 70% of their combined city and highway test range for 10 years or 150,000 miles, whichever comes first. 2030 and subsequent model year BEVs and FCEVs will be required to retain at least 80% of their combined city and highway test range for 10 years or 150,000 miles, whichever comes first. OEMs will be required to collect and submit battery state of health data for 30 vehicles per test group when a vehicle's age is 3 years and 6 years to demonstrate compliance over the vehicle's useful life. The Department reserves the right to conduct verification testing on 10 vehicles in a given test group as proposed by the California Air Resources Board (CARB). A compliance plan, up to and including recall, is required if 3 or more vehicles fail durability testing.

The proposed warranty measure will require OEMs to provide a minimum ZEV warranty of 3 years or 50,000 miles, whichever comes first, for all powertrain or propulsion components, except the traction battery (BEVs and FCEVs). Warranty coverage will be 7 years or 70,000 miles, whichever comes first, for high-priced parts. BEV and FCEV traction batteries will be covered for 8 years or 100,000 miles, whichever comes first, 80% state of health warranty. BEVs and FCEVs will also be subject to the same warranty reporting requirements as ICEVs and PHEVs. If warranty failures of any component within a test group exceed 4%, the vehicle manufacturer must submit a corrective action plan that may include actions up to a recall.

The proposed service information and standardized data parameters measure will require OEMs to provide independent repair shops with the same access and disclosure of repair information required for ICEVs. This proposed measure would also require OEMs to comply with

ICEV tooling standardization requirements to allow independent repair shops to reprogram the vehicle's electronic control unit (ECU). This measure also requires a standardized onboard diagnostic data connector and the use of standardized communication protocols to access this information.

The proposed battery label measure will require all traction batteries used in BEVs, FCEVs, or PHEVs to be labeled to support secondary use and recycling efforts. Required battery label information will include cell cathode chemistry, capacity performance, composition, voltage, and a digital quick response (QR) code. The QR code will be linked to an updatable database containing information relevant to secondary users, vehicle dismantlers, and recyclers.

ZEV Regulatory Flexibilities for OEMs

There are several ZEV compliance flexibilities proposed as part of the ACC II regulation. Flexibilities include PHEV values, value banking, value trading, proportional FCEV values, historical credits, pooling, early compliance values, environmental justice (EJ) values, and simplified ZEV value accounting. Starting with model year 2026, ZEV values may be banked for up to 5 additional model years. These values may be used to offset compliance shortfalls. Values may also be traded and transferred with other OEMs to offset compliance shortfalls. PHEVs that meet the minimum AER requirements discussed above may be used to meet a portion of an OEM's ZEV requirement. PHEV value usage is capped at 20% per year and values will have a 5-year life.

FCEV values would "travel" under ACC II standards. A FCEV placed in California, or any

other Section 177 state with California's ZEV standards, would earn proportional value in all Section 177 states. This mechanism was utilized to support FCEVs as a viable transportation alternative. FCEVs have a higher purchase cost and there is insufficient hydrogen refueling infrastructure within Section 177 states. Under ACC II, the use of proportional FCEV values will be capped at 10% of an OEM's annual ZEV requirement through model year 2030.

Historical credits represent existing ZEV and PHEV credits earned under the current ACC I program, which ends following the 2025 model year. Historical ACC I ZEV and PHEV credit balances for New York will be converted to ACC II values by dividing each by 2.1. Starting with model year 2026, an OEM may only use historical credits to offset a compliance deficit. Historical credits may not simultaneously be utilized to create or expand banked values and offset a deficit. Historical credit usage will be capped at 15% per year and will sunset following model year 2030.

OEMs will have the voluntary option of unlocking increased flexibility with historical credits through a cumulative credit cap on model years 2026 through 2030. The cumulative cap totals 75% of historical credits. Under the cumulative cap, an OEM may exceed the 15% annual cap in a single year to meet a compliance deficit. For example, an OEM may utilize 25% historical credits in model year 2026 (i.e., exceeds 15% cap), leaving them with 50% of their cumulative cap for the remaining model years. An OEM's ability to access the full cumulative cap value will be linked to EJ flexibilities discussed in greater detail below. An OEM seeking to fully access the cumulative cap will be required to meet at least 0.5% of the annual ZEV requirement in a single year to exceed the annual historical credit cap for three model years. Meeting this additional 0.5% for an additional one or two years will unlock an additional one or two years of exceeding the

annual cap.

Pooling is a compliance flexibility that maintains the overall stringency of the ZEV regulation while allowing for minor state to state variability in where vehicles are delivered for sale. This flexibility allows OEMs to transfer “pooled” or excess values in one state to meet their ZEV requirement in another state where they may have difficulty demonstrating compliance. ACC I contains a pooling provision split into Eastern and Western pools. The Eastern pool consists of all Section 177 states east of the Mississippi River that have adopted the California ZEV regulations. The Western Pool is all Section 177 states west of the Mississippi River that have adopted the California ZEV regulations. California is not included in either pool. Currently, 15 states have adopted California’s ZEV regulations. These states are California, Colorado, Connecticut, Maine, Maryland, Massachusetts, Minnesota, Nevada, New Jersey, New Mexico, New York, Oregon, Rhode Island, Vermont, and Virginia.

ACC II will create a single pool of all states, including California, that have adopted California’s ZEV regulation. Use of pooled ZEV values will be capped starting at 25% in model year 2026 and will decline each year until sunseting following model year 2030. Historical and EJ credits are ineligible for pooling. The annual pooling percentage cap is shown in the following table.¹⁷

Table 2: Proposed Pooling Declining Cap

¹⁷ CARB, Advanced Clean Cars II Staff Report: Initial Statement of Reasons (ISOR). Table III-2, p. 46. April 12, 2022. <https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/accii/isor.pdf>

Model Year	2026	2027	2028	2029	2030
Pooling Cap	25%	20%	15%	10%	5%

Early compliance values will allow OEMs to earn values for 2024 and 2025 model year ACC I ZEVs and PHEVs that meet ACC II standards. To earn early compliance values, an OEM must voluntarily deliver ZEVs and PHEVs for sale in excess of 7% of their ACC I sales volume for model years 2024 and 2025. ZEVs and PHEVs must also meet ACC II AER requirements. Early values may be used to offset compliance deficits in model years 2026 through 2028. The use of early compliance values will be capped at 15% per year and will sunset following model year 2028. Early compliance values will not count as historical credits, may be pooled, and may be traded to another OEM.

ACC II and New York’s CLCPA include an EJ component to address vehicle pollution in low income and disadvantaged communities that have historically been disproportionately impacted. The proposed voluntary ACC II EJ flexibility is intended to award extra ZEV values to those OEMs that opt to undertake programs to expand ZEV availability to low income and disadvantaged communities. Optional programs include discounted ZEVs/PHEVs placed in community-based clean mobility programs, used ZEVs/PHEVs remaining in New York following the expiration of their lease term, and making low-cost ZEVs available to low income and disadvantaged communities. EJ values will be capped at 5% per year and will sunset following model year 2031.

Community-based Clean Mobility Programs

OEMs may earn an additional 0.50 ZEV value or 0.40 ZEV value for ZEVs and PHEVs, respectively, that are sold at a minimum 25% discount off the manufacturer's suggested retail price (MSRP) to a community mobility program. Qualifying vehicles must be 2026 through 2031 model year ZEVs and PHEVs with a capacity of at least 6 passengers. The passenger capacity requirement does not apply to ZEVs.

Used ZEVs and PHEVs Following Lease Expiration

OEMs may earn an additional 0.25 ZEV value or 0.20 ZEV value for leased ZEVs and PHEVs, respectively, that are retained within New York following expiration of their initial lease term. Values will be granted after an eligible vehicle is registered for operation in New York and placed in a disadvantaged community. Disadvantaged community is defined as being located within census block groups that meet the Housing and Urban Development (HUD) 50% Area Median Income (AMI) threshold¹⁸, that are also located within the DEC Potential Environmental Justice Areas¹⁹; or are located within New York State Opportunity Zones.²⁰

Low-Cost ZEVs Available to Low Income and Disadvantaged Communities.

OEMs may earn an additional 0.10 ZEV value for making low-cost ZEVs and PHEVs available to low income and disadvantaged communities. Values may be earned for passenger cars with manufacturer suggested retail price (MSRP) under \$20,000 and for light-duty trucks with MSRP under \$27,000.

¹⁸ <https://www.nyscrda.ny.gov/ny/disadvantaged-communities>

¹⁹ <https://www.dec.ny.gov/public/911.html>

²⁰ <https://esd.ny.gov/opportunity-zones>

Table3: ACC II Regulatory Flexibility Caps

Model Year	2026	2027	2028	2029	2030	2031
Proportional FCEV Values	10%	10%	10%	10%	10%	0%
Historical Credit Cap	15%	15%	15%	15%	15%	0%
Pooling Cap	25%	20%	15%	10%	5%	0%
Early Compliance Credit Cap	15%	15%	15%	0%	0%	0%
EJ Value Cap	5%	5%	5%	5%	5%	5%

Table 4: Environmental Justice Programs Values Summary

EJ Value Category	EJ Value Per PHEV	EJ Value Per ZEV
Community Program	0.40	0.50
Used ZEV	0.20	0.25
Low-Cost Vehicles	0.10	0.10

Simplified ZEV Credit Accounting

The proposed ACC II amendment includes provisions intended to simplify current ZEV value accounting. First, ZEV compliance calculations will be revised to mimic compliance calculations in the LEV and GHG programs. There will be a single model year requirement and compliance will be assessed based on actual sales for that model year. If there is a deficit, then other value allowances (banked, historical, early compliance, EJ values, FCEV travel) may be used to satisfy the requirement. If there is a surplus, then excess values may be banked. Second, ZEVs and PHEVs that meet the AER requirements described above will each earn 1 ZEV value

per vehicle.

ACC II LEV IV Standards

The proposed LEV IV revisions include the following elements:

- Revised fleet average standards to prevent backsliding
- Lower fleet average standards and deleted high emission bins for light-duty vehicles
- Reduced cold-start emissions from light-duty vehicles
- Reduced evaporative emissions from light-duty vehicles
- Control of MDV in-use emissions while towing
- Lower fleet average standards and delete high emission bins for medium-duty vehicles
- Limit emissions from MDV under aggressive driving conditions

Revised Fleet Average Standards

ACC I fleet average calculations currently include all ICEVs, ZEVs, and PHEVs delivered by an OEM to demonstrate compliance with the 0.030 grams/mile (g/mi) NMOG+NO_x fleet average standard. Starting in model year 2026, the fleet average standard will remain at 0.030 g/mi, but ZEVs will be phased out of the fleet average calculation. 50% of ZEVs will be counted in the fleet average in model year 2026. 25% of ZEVs will be counted in the fleet average in model year 2027. ZEVs will not be included in the fleet average starting in model year 2028. This provision will prevent backsliding of NMOG+NO_x emissions by requiring 100% of ICEVs to meet the 0.030 g/mi NMOG+NO_x standards regardless of how many ZEVs an OEM sells. The 0.030 g/mi NMOG+NO_x standard will apply to all PC, LDT, and MDPV.

Light-Duty Vehicle Emission Bins and High Emitting Vehicles

The proposed ACC II amendments will introduce new, more stringent NMOG+NOx emission certification bins and will eliminate the dirtiest, less stringent emission certification bins for PC, LDT, and MDPV. The existing LEV160 (0.160 g/mi) emission certification bin will sunset following model year 2025. The existing ULEV125 (0.125 g/mi) emission certification bin will sunset following model year 2028. Starting in model year 2028, the highest emission certification bin will be existing ULEV70 (0.070 g/mi). Existing ULEV50 (0.050 g/mi), SULEV30 (0.030 g/mi), and SULEV20 (0.020 g/mi) emission certification bins will continue to be available. New ULEV60 (0.060 g/mi), ULEV40 (0.040 g/mi), SULEV25 (0.025 g/mi) and SULEV15 (0.015 g/mi) emission certification bins will be available starting with model year 2026. As such, the upper certification limit will be 0.070 g/mi while the lower certification limit will be 0.015 g/mi for all 2026 and subsequent PC, LDT, and MDPV ICEVs as shown in the following table.

Table 5: NMOG+NOx Fleet Average Emission Certification Bins

Emission Certification Bin	NMOG+NOx (g/mi)	Sunset Model Year
LEV160	0.160	2025
ULEV125	0.125	2028
ULEV70	0.070	--
ULEV60	0.060	--
ULEV50	0.050	--
ULEV40	0.040	--
SULEV30	0.030	--
SULEV25	0.025	--

SULEV20	0.020	--
SULEV15	0.015	--

The proposed ACC II standards also revise certification standards for aggressive driving, which includes rapid accelerations and high speeds. Currently, aggressive driving certification for PM emissions is determined using the US06 drive cycle with a certification standard of 0.06 g/mi. The aggressive driving PM certification standard will be reduced to 0.03 g/mi for all PC, LDT, and MDPV ICEVs starting with model year 2026. The new PM standards will be phased in from model years 2027 through 2030 as shown in the following table.

Table 6: PM Phase-In Schedule

Model Year	2027	2028	2029	2030
Phase-In %	25%	50%	75%	100%

Current aggressive driving certification standards for NMOG+NOx and CO allow for the use of composite results averaging results from US06, SC03, and federal test procedure (FTP) drive cycles.²¹ ACC II will eliminate composite averaging and require all PC, LDT, and MDPV ICEVs to certify using a new US06 aggressive drive cycle. The new US06 standard will be phased in from model years 2026 through 2028 as shown in the following tables.

Table 7: NMOG+NOx and CO Aggressive Driving Emission Standards

US06 Stand-Alone Aggressive Driving Emission Standards
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²¹ <https://www.epa.gov/vehicle-and-fuel-emissions-testing/dynamometer-drive-schedules>

FTP Bin	NMOG+NOx (g/mi)	CO (g/mi)
ULEV125	0.125	9.6
ULEV70	0.070	9.6
ULEV60	0.060	9.6
ULEV50	0.050	9.6
ULEV40	0.040	9.6
SULEV30	0.030	9.6
SULEV25	0.025	9.6
SULEV20	0.020	9.6
SULEV15	0.015	9.6

Table 8: NMOG+NOx and CO Aggressive Driving Emission Standards Phase-In

Model Year	2026	2027	2028
Phase-In %	30%	60%	100%

Reduce Light-Duty Vehicle Cold Start Emissions

ICEV emissions are generally highest during cold starts due to the catalytic converter not reaching optimal operating temperature. Cold starts are defined as a vehicle sitting for at least 12 hours at ambient temperatures. Current California certification procedures require an ICEV to soak for 12 to 36 hours at a temperature between 68 and 86 degrees Fahrenheit before the vehicle is started and emissions are measured. This process is also referred to as a full soak. California certification testing results have demonstrated that partial soaks have higher emissions than full soaks. ACC II is proposing new emission standards for cold start emissions to achieve greater in-

use emissions benefits. The new cold soak emission standards and phase-in schedule are shown in the following tables.

Table 9: Emission Control for All Vehicle Soaks

Time	Emissions Standard
10 minutes	0.50 x FTP standard
40 minutes	0.767 x FTP standard
180+ minutes	1.00 x FTP standard

Table 10: Emission Control for All Vehicle Soaks Phase-In

Model Year	2026	2027	2028
Phase-In %	30%	60%	100%

The ACC II amendments also revise the cold start idle time to account for in-use driving practices. The current cold start test procedure includes a 20 second engine idle between starting the vehicle and first acceleration. In-use data shows that real world drivers are idling for significantly shorter periods before accelerating, which results in higher cold start emissions since the emissions control systems are not at operating temperature. A new 8-second idle certification test will be added to the FTP test to address cold start emissions that may occur due to shortened idle times. The proposed emission standards and phase-in schedule are shown in the following tables.

Table 11: Cold Start Quick Drive-Away Emissions

Emission Standards for 8-Second Idle FTP	
FTP Bin	NMOG+NO _x (g/mi)
ULEV125	0.125
ULEV70	0.082
ULEV60	0.072
ULEV50	0.062
ULEV40	0.052
SULEV30	0.042
SULEV25	0.037
SULEV20	0.031
SULEV15	0.025

Table 12: Cold Start Quick Drive-Away Emissions Phase-In

Model Year	2027	2028	2029	2030
Phase-In %	25%	50%	75%	100%

Lastly, ACC II is revising cold start emissions for blended PHEVs. Blended PHEVs are PHEVs that require an internal combustion engine to meet the full power demands of the vehicle before the traction battery is depleted and enters charge sustaining mode. High power cold starts are unique to blended PHEVs. Amendments to ACC II will require blended PHEVs to certify to a new cold start emission standard for the US06 test. The proposed blended PHEV high power cold start emission standards and phase-in schedule are shown in the following tables.

Table 13: PHEV High Power Cold Start Emissions Standards

Emission Standards for PHEV High Power Cold Start US06	
FTP Bin	Cold Start US06 NMOG+NOx (g/mi)
ULEV125	0.250
ULEV70	0.200
ULEV60	0.175
ULEV50	0.150
ULEV40	0.125
SULEV30	0.100
SULEV25	0.083
SULEV20	0.067
SULEV15	0.050

Table 14: PHEV High Power Cold Start Emissions Phase-In

	2026	2027	2028
2 Test Groups or Less	--	50%	100%
3 Test Groups or More	30%	60%	100%

Reduce Evaporative Emissions from Light-Duty Vehicles

Running loss evaporative emissions are fuel vapors (HC) that escape during vehicle operation. The current running loss evaporative emission standard of 0.05 g/mi HC has remained unchanged since the 1990s. OEM certification data submitted to CARB show that most new vehicles are certified with running loss evaporative emissions of 0.01 g/mi or less HC. The proposed ACC II amendments would reduce the running loss evaporative emission standard from 0.05 g/mi to 0.01 g/mi HC for PC, LDT, and MDPV. The phase-in schedule is shown in the following table.

Table 15: Running Loss Evaporative Emission Standard Phase-In

Model Year	2026	2027	2028
Phase-In %	30%	60%	100%

The ACC II amendments also include revised emission standards to control evaporative emissions from gasoline tanks with sealed, non-integrated refueling canister only systems (NIRCOS). Evaporative emissions from these gasoline tanks and NIRCOS are also referred to as “puff emissions.” NIRCOS are carbon canisters commonly installed on PHEVs and some hybrid electric vehicles (HEVs). The carbon canister absorbs gasoline vapors before they can escape to the ambient air. Testing has discovered that the carbon canisters are often undersized to adequately capture in-use evaporative emissions. The ACC II amendments will require a minimum carbon canister size for NIRCOS equipped vehicles starting in model year 2028. OEMs will demonstrate compliance through modeling and a defined calculation. There will be no additional testing requirements.

Controlling In-Use MDV Emissions While Towing

The proposed ACC II amendments include new in-use requirements for 2026 and subsequent model year chassis certified MDV over 14,000 pounds GVWR to ensure robust emission control even while towing. The new in-use requirement will be a moving average window (MAW) requirement similar to the MAW requirement adopted under California's Heavy-Duty Low NOx Omnibus rulemaking in 2021. Class 2b and 3 chassis certified MDV will be required to certify using a portable emissions measurement system (PEMS). PEMS units measure and record tailpipe emissions while a vehicle is being operated on-road. The MAW method measures emissions every second over a 5-minute test window. Each 1-second window corresponds to a specific load on the engine.

MDV Fleet Average Standards and Emission Bins

Starting in model year 2026, the Class 2b and 3 MDV fleet average standards will phase-out ZEVs from the fleet average calculations. 50% of Class 2b and 3 ZEVs in the MDV fleet averages will be counted in model year 2026. 25% of Class 2b and 3 ZEVs in the MDV fleet average will be counted in model year 2027. Class 2b and 3 MDV ZEVs will not be included in the fleet averages starting in model year 2028. This provision will prevent backsliding of NMOG+NOx emissions by requiring 100% of Class 2b and 3 MDV ICEVs to meet the 0.150 g/mi and 0.175 g/mi NMOG+NOx standards, respectively, regardless of how many ZEVs an OEM sells. The 0.150 g/mi and 0.175 NMOG+NOx standards will apply to all Class 2b and 3 MDV.

The proposed ACC II amendments will introduce new, more stringent NMOG+NOx emission certification bins and will eliminate the dirtiest, less stringent emission certification bins for Class

2b and 3 MDV. The existing Class 2b ULEV250 (0.250 g/mi) and ULEV200 (0.200 g/mi) emission certification bins will sunset following model year 2027. Existing SULEV170 (0.170 g/mi) and SULEV150 (0.150 g/mi) emission certification bins will continue to be available. New SULEV125 (0.125 g/mi), SULEV100 (0.100 g/mi), SULEV85 (0.085 g/mi) and SULEV75 (0.075 g/mi) emission certification bins will be available starting with model year 2026. Starting in model year 2028, the highest emission certification bin will be SULEV170 (0.170 g/mi) and the lower limit will be 0.075 g/mi for all Class 2b MDV. The emission standards and certification bins for Class 2b MDV are shown in the following table.

Table 16: Class 2b MDV NMOG+NOx Fleet Average Emission Certification Bins

Emission Certification Bin	NMOG+NOx (g/mi)	Sunset Model Year
ULEV250	0.250	2027
ULEV200	0.200	2027
SULEV170	0.170	--
SULEV150	0.150	--
SULEV125	0.125	--
SULEV100	0.100	--
SULEV85	0.085	--
SULEV75	0.075	--

The existing Class 3 NMOG+NOx emission standards ULEV400 (0.400 g/mi) and ULEV270 (0.270 g/mi) emission certification bins will sunset following model year 2027. Existing SULEV230 (0.230 g/mi) and SULEV200 (0.200 g/mi) emission certification bins will continue to

be available. New SULEV175 (0.175 g/mi), SULEV150 (0.150 g/mi), SULEV125 (0.125 g/mi) and SULEV100 (0.100 g/mi) emission certification bins will be available starting with model year 2026. Starting in model year 2028, the highest emission certification bin will be SULEV230 (0.230 g/mi) and the lowest limit will be 0.100 g/mi for all Class 3 MDV. The emission standards and certification bins for Class 3 MDV are shown in the following table.

Table 17: Class 3 MDV NMOG+NOx Fleet Average Emission Certification Bins

Emission Certification Bin	NMOG+NOx (g/mi)	Sunset Model Year
ULEV400	0.400	2027
ULEV270	0.270	2027
SULEV230	0.230	--
SULEV200	0.200	--
SULEV175	0.175	--
SULEV150	0.150	--
SULEV125	0.125	--
SULEV100	0.100	--

MDV Aggressive Driving Emission Standards

Current Class 2b and 3 MDV aggressive driving certification standards for NMOG+NOx and carbon monoxide (CO) allow the use of composite results averaging results from US06, SC03, and federal test procedure (FTP) drive cycles. ACC II will eliminate composite averaging and require all Class 2b and 3 MDV ICEVs to certify using a new US06 aggressive drive cycle. Class 2b and 3 MDV will be required to meet the new stand-alone aggressive driving standard on both the FTP

test and the aggressive driving test. The new US06 standard will be phased in from model years 2026 through 2028 as shown in the following tables.

Table 18: Class 2b MDV Aggressive Driving Standards

FTP Bin	NMOG+NO _x (g/mi)		CO (g/mi)	
	Full US06	US06 Bag 2 (HP/GVWR≤0.024)	Full US06	US06 Bag 2 (HP/GVWR≤0.024)
SULEV170	0.170	0.170	25	15
SULEV150	0.150	0.150	25	15
SULEV125	0.125	0.125	25	15
SULEV100	0.100	0.100	25	15
SULEV85	0.085	0.085	25	15
SULEV75	0.075	0.075	25	15

Table 19: Class 3 MDV Aggressive Driving Standard

FTP Bin	NMOG+NO _x (g/mi)	CO (g/mi)
SULEV230	0.230	10
SULEV200	0.200	10
SULEV175	0.175	10
SULEV150	0.150	10
SULEV125	0.125	10
SULEV100	0.100	10

Table 20: MDV Aggressive Driving Standards Phase-in

Model Year	2026	2027	2028
Phase-In %	30%	60%	100%

Estimated ACC II Emissions Reductions

California estimated the emissions benefits of ACC II using CARB’s EMFAC2021 and Vision models. EMFAC2021²² is a California-specific emissions model. The California Vision model²³ is used to estimate upstream emissions from transportation fuel and electric power industries. California’s baseline LDV sales and sales percentages, PHEV electric vehicle miles traveled (eVMT), blended and non-blended PHEV sales percentages, BEV and PHEV sales fractions, and ICEV emissions bin percentages are shown in the following tables.

²² <https://arb.ca.gov/emfac/>

²³ <https://ww2.arb.ca.gov/resources/documents/vision-scenario-planning>

Table 21: California 2025 Baseline LDV Sales and Sales Percentages by Vehicle

Technology

Calendar Year	ICEV		PHEV		BEV		FCEV	
	Vehicle Sales	Sales %	Vehicle Sales	Sales %	Vehicle Sales	Sales %	Vehicle Sales	Sales %
2026	1,707,016	89.3%	62,564	3.3%	128,288	6.7%	13,916	0.7%
2027	1,709,751	89.0%	63,985	3.3%	133,826	7.0%	14,302	0.7%
2028	1,712,215	88.6%	64,928	3.4%	139,764	7.2%	14,754	0.8%
2029	1,715,115	88.4%	65,738	3.4%	145,156	7.5%	15,135	0.8%
2030	1,715,566	88.0%	66,660	3.4%	152,431	7.8%	15,716	0.8%
2031	1,723,372	88.0%	66,963	3.4%	153,125	7.8%	15,787	0.8%
2032	1,730,988	88.0%	67,259	3.4%	153,801	7.8%	15,857	0.8%
2033	1,738,331	88.0%	67,544	3.4%	154,454	7.8%	15,924	0.8%
2034	1,745,398	88.0%	67,819	3.4%	155,082	7.8%	15,989	0.8%
2035	1,725,197	88.0%	68,083	3.4%	155,686	7.8%	16,051	0.8%

Table 22: ACC II Blended and Non-Blended PHEV eVMT Fractions

Model Year	LDA Blended	LDA Non-Blended	LDT Blended	LDT Non-Blended
2026	54%	66%	49%	59%
2027	57%	69%	51%	62%
2028	58%	71%	53%	64%
2029	60%	73%	55%	67%
2030	62%	75%	57%	69%
2031	63%	77%	59%	72%
2032+	65%	79%	61%	74%

Table 23: Blended and Non-Blended PHEV Sales Percentages for Blended and Non-Blended PHEVs

Model Year	PHEV % Blended, Non-US06 Capable	PHEV % Non-Blended, US06 Capable
2026-2028	50%	50%
2029-2035	10%	90%
2035+	0%	100%

Table 24: California ZEV (BEV+FCEV) and PHEV Sales Fractions for ACC II

Model Year	BEV+FCEV	PHEV
2026	22.2%	3.3%
2027	30.7%	3.3%
2028	39.1%	3.4%
2029	47.6%	3.4%
2030	56.1%	3.4%
2031	72.6%	3.4%
2032	78.6%	3.4%
2033	81.3%	6.7%
2034	82.7%	11.3%
2035+	82.7%	17.3%

Table 25: Emission Bins for California ICEV Fleet for Model 2026 and Beyond

Model	LDA		LDT1, LDT2,LDT3		
Year	ULEV50	SULEV30	ULEV125	ULEV50	SULEV30
2026	5.0%	54.2%	2.1%	26.0%	64.6%
2027	5.0%	45.9%	2.1%	17.2%	64.6%
2028	--	43.1%	--	--	74.6%
2029	--	40.4%	--	--	59.3%
2030	--	28.5%	--	--	54.8%
2031	--	10.8%	--	--	39.6%
2032	--	2.6%	--	--	36.3%
2033	--	2.6%	--	--	23.2%
2034	--	--	--	--	13.2%
2035+	--	--	--	--	--

The estimated California statewide upstream emissions benefits are shown in the following table.

Table 26: California Statewide ACC II Upstream Emissions Relative to Baseline

Calendar Year	NOx (TPD)	PM2.5 (TPD)	CO2 (MMT/Year) ^a
2026	0.07	0.00	(0.07)
2027	0.18	0.00	(0.14)
2028	0.34	0.01	(0.23)
2029	0.55	0.02	(0.31)
2030	0.85	0.06	(0.44)
2031	1.31	0.12	(0.47)
2032	1.81	0.18	(0.42)
2033	2.34	0.25	(0.29)
2034	2.92	0.33	(0.08)
2035	3.53	0.42	0.21
2036	4.15	0.51	0.58
2037	4.76	0.61	1.02
2038	5.38	0.71	1.52
2039	6.00	0.81	2.07
2040	6.62	0.92	2.68

a – Values in () represent emissions increase

The estimated California statewide emissions benefits from vehicle usage, fuel production, and fuel delivery emissions are shown in the following table.

**Table 27: California Statewide ACC II Emission Benefits Relative to Baseline
(includes vehicle, fuel production, and fuel delivery emissions)**

Calendar Year	ROG (TPD)	NOx (TPD)	PM2.5 (TPD)	CO2 (MMT/Year)
2026	0.35	0.59	0.03	1.08
2027	0.94	1.46	0.07	2.87
2028	1.82	2.57	0.12	5.29
2029	2.91	3.90	0.19	8.34
2030	4.19	5.42	0.27	11.90
2031	5.82	7.29	0.37	16.60
2032	7.60	9.33	0.48	21.70
2033	9.47	11.50	0.60	27.00
2034	11.40	13.80	0.72	32.60
2035	13.40	16.20	0.85	38.40
2036	15.50	18.70	0.97	44.00
2037	17.60	21.10	1.09	49.20
2038	19.70	23.40	1.20	54.00
2039	21.80	25.70	1.30	58.60
2040	23.91	27.96	1.39	62.70

The estimated California statewide wells-to-wheels (WTW) emission benefits are shown in the following table.

Table 28: California Statewide Wells-to-Wheels Emission Benefits of ACC II Regulation

Calendar Year	NOx (TPD)	PM2.5 (TPD)	CO2 (MMT/Year)
2026	0.7	0.0	1.0
2027	1.6	0.1	2.7
2028	2.9	0.1	5.1
2029	4.5	0.2	8.0
2030	6.3	0.3	11.5
2031	8.6	0.5	16.1
2032	11.1	0.7	21.3
2033	13.9	0.9	26.7
2034	16.7	1.1	32.5
2035	19.8	1.3	38.6
2036	22.8	1.5	44.6
2037	25.8	1.7	50.2
2038	28.8	1.9	55.6
2039	31.7	2.1	0.6
2040	34.6	2.3	65.4

New York State emission benefits and WTW benefits resulting from proposed adoption of ACC II are based on ICCT MOVES3 modeling.²⁴ The annual and cumulative emissions benefits of ACC II relative to a business-as-usual scenario are shown in the following tables.

Table 29: New York Baseline LDV Sales and Sales Percentages by Vehicle Technology

Calendar Year	ICEV		PHEV		BEV+FCEV	
	Vehicle Sales	Sales %	Vehicle Sales	Sales %	Vehicle Sales	Sales %
2026	465,992	75%	20,641	3%	138,859	22%
2027	414,925	66%	20,746	3%	193,003	31%
2028	355,403	58%	21,674	3%	241,674	39%
2029	311,138	49%	21,589	3%	302,248	48%
2030	258,429	41%	21,695	3%	357,972	56%
2031	154,835	24%	21,935	3%	468,376	73%
2032	117,402	18%	22,176	3%	512,654	79%
2033	77,456	12%	43,246	7%	524,767	81%
2034	39,991	6%	75,316	11%	551,203	83%
2035	0	0%	116,550	17%	557,151	83%

²⁴ Add footnote

**Table 30: New York Annual ACC II Benefits Compared to Business-as-Usual Scenario,
2026-2040**

Calendar Year	NOx (TPD)	PM2.5 (TPD)	CO2 (MMT/Year)
2026	0.13	0.01	0.53
2027	0.33	0.02	1.32
2028	0.53	0.04	2.30
2029	0.73	0.06	3.42
2030	0.88	0.08	4.75
2031	1.16	0.11	6.56
2032	1.44	0.14	8.52
2033	1.17	0.17	10.61
2034	1.97	0.21	12.91
2035	2.18	0.24	15.30
2036	2.60	0.28	17.88
2037	3.02	0.31	20.38
2038	3.46	0.35	22.82
2039	3.89	0.38	25.18
2040	4.31	0.41	27.46

Table 31: Cumulative ACC II Emissions Benefits Compared to Business-as-Usual Scenario, 2025-2040 (NYS Model Year 2026 Implementation)

	NO _x (US Tons)	PM _{2.5} (US Tons)	WTW CO ₂ e (Million Metric Tons (MMT))
By 2030	1,065	87	12.3
By 2035	4,525	445	66.2
By 2040	11,594	1,153	180

V. Costs

The Department structured its review of costs and benefits associated with New York State’s adoption of ACCII based on the format presented by California’s Standardized Regulatory Impact Assessment (SRIA).²⁵

ACC II ZEV Regulation Costs

The ACC II ZEV regulation would require OEMs to comply with the annual ZEV sales percentage requirement by producing and selling ZEVs in New York. The cost of producing ZEVs is currently greater than the cost of producing traditional ICEVs due to increased component and manufacturing costs. Manufacturing ZEVs requires large upfront costs related to research and development, prototyping, assembly line upgrades and tooling, and other categories. It is expected that increased OEM costs will be passed on to consumers in the form of higher purchase prices.

²⁵ https://ww2.arb.ca.gov/rulemaking/2022/advanced-clean-cars-ii?utm_medium=email&utm_source=govdelivery. Appendix C-1.

CARB estimated the cost of ZEVs for battery-electric and fuel cell powered vehicles by adding ZEV component costs, fuel cell component costs, and energy storage costs. Battery storage cost is the largest component of the incremental cost of a BEV. Of note, battery costs have declined by almost 90 percent since 2010 and are expected to continue to drop.²⁶ Battery costs are expected to drop from approximately \$95.3/kWh in 2026 to \$72.5/kWh in 2030.²⁷ CARB’s estimates of battery pack costs are shown in the following table.²⁸

Table 32: Battery Pack Costs in (\$/kWh) for BEVs, PHEVs, and FCEVs for Model Years 2026 Through 2035

Technology	Model Year									
	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
BEV	95.3	88.7	82.4	76.7	72.5	68.9	65.4	62.2	59.1	56.1
PHEV	133.5	124.1	115.4	107.3	101.5	96.4	91.6	87.0	82.7	78.5
FCEV	832.8	824.5	816.2	808.1	800.0	792.0	784.1	776.2	768.5	760.8

²⁶ https://ww2.arb.ca.gov/rulemaking/2022/advanced-clean-cars-ii?utm_medium=email&utm_source=govdelivery. Appendix C-1. Pg. 51.

²⁷ https://ww2.arb.ca.gov/rulemaking/2022/advanced-clean-cars-ii?utm_medium=email&utm_source=govdelivery. Appendix C-1. Pg. 52.

²⁸ https://ww2.arb.ca.gov/rulemaking/2022/advanced-clean-cars-ii?utm_medium=email&utm_source=govdelivery. Appendix C-1. Pg. 53.

CARB also estimated ZEV non-battery component costs as part of its ACC II rulemaking. Non-battery component costs are applied as variable costs based on motor power or fixed costs per motor. CARB’s non-battery component costs are shown in the following table.²⁹

Table 33: Summary of Non-battery Component Costs

Nominal Component Set	Tech Application (Yes/No)				Variable Cost \$/x	Fixed Cost	Scale by (x)
	BEV	PHEV Car-Based	PHEV Truck-Based	FCEV			
Traction motor (PMSM)	Yes	Yes	Yes	Yes	\$3.60		Motor kW
Traction motor (Induction) Dual motor only	Yes	Yes	No	Yes	\$2.10		Motor kW
Rest of motor (PMSM)	Yes	No	No	Yes		\$1.10	Multiplier
Rest of motor (Induction) Dual motor only	Yes	No	No	Yes		\$1.30	Multiplier
Single-speed gearbox	Yes	AWD	No	Yes		\$400	-
Traction inverter (IGBT)	No	Yes	No	No	\$2.50		Motor kW

²⁹ https://ww2.arb.ca.gov/rulemaking/2022/advanced-clean-cars-ii?utm_medium=email&utm_source=govdelivery. Appendix C-1. Pg. 55.

Traction inverter (Si-C)	Yes	No	No	Yes	\$3.80		Motor kW
Integrated onboard AC charger	Yes	Yes	Yes	No	\$62	\$765	OBC kW
Integrated onboard DCFC circuitry	Yes	No	No	No		\$150	-
Integrated DC-DC converter	Yes	Yes	Yes	Yes		\$405	-
Integrated housing + other	Yes	Yes	Yes	Yes		\$65	-
Integrated HV controller	Yes	Yes	Yes	Yes		\$185	-
HV "orange cables"	Yes	Yes	Yes	Yes		\$180	-
Powertrain cooling	Yes	Yes	Yes	Yes		\$300	per motor
Second motor HV cables	Yes	Yes	No	Yes		\$25	
Charging cord and adapters	Yes	Yes	Yes	No		\$200	-

CARB estimated fuel cell and hydrogen storage system costs for FCEVs. The estimated costs for fuel cells and hydrogen storage systems are shown in the following tables.³⁰

Table 34: Fuel Cell System Cost (\$/vehicle)

Vehicle Type	Model Year									
	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Small Car	6,842	6,315	5,801	5,298	4,806	4,632	4,461	4,292	4,125	3,960
Med Car	9,523	8,692	7,886	7,106	6,352	6,113	5,878	5,648	5,422	5,201
Small SUV	8,801	8,077	7,370	6,679	6,003	5,795	5,590	5,389	5,192	4,997
Med SUV	10,477	9,630	8,803	7,998	7,213	6,945	6,682	6,423	6,169	5,920
Pickup	13,977	12,925	11,902	10,909	9,946	9,520	9,101	8,690	8,287	7,892

³⁰ https://ww2.arb.ca.gov/rulemaking/2022/advanced-clean-cars-ii?utm_medium=email&utm_source=govdelivery.
Appendix C-1. Pg. 59.

Table 35: Hydrogen Tank Cost (\$/vehicle)

Vehicle Type	Model Year									
	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Small Car	2,818	2,565	2,312	2,058	1,805	1,738	1,672	1,605	1,538	1,471
Med Car	3,035	2,751	2,468	2,185	1,901	1,827	1,753	1,678	1,604	1,529
Small SUV	3,211	2,912	2,613	2,314	2,016	1,937	1,858	1,780	1,701	1,623
Med SUV	3,439	3,113	2,787	2,461	2,135	2,050	1,965	1,880	1,794	1,709
Pickup	3,813	3,441	3,069	2,697	2,325	2,231	2,137	2,044	1,950	1,856

CARB estimated “delete engine” costs avoiding manufacturing costs associated with internal combustion engines. The delete engine costs are shown in the following table.³¹

Table 36: Estimated Delete Engine Costs (\$/vehicle)

Cost Reduction Category	Applies to BEVs	Applies to FCEV	Applies to PHEV	Cost Reduction Car based (2021\$)	Cost Reduction Truck based (2021\$)
ICE Removal	Yes	Yes	No	-\$3,500	-\$5,000
Transmission Removal	Yes	Yes	No	-\$1,500	-\$2,000
LEV III Criteria Compliance	Yes	Yes	No	-\$68	-\$145
Current GHG Compliance	Yes	Yes	Yes	-\$965	

The Department believes CARB’s battery pack, non-battery component, fuel cell and hydrogen storage system, and delete engine cost estimates would similarly apply to vehicles sold in New York State.

³¹CARB, Appendix C-1, Standardized Regulatory Impact Assessment (SRIA), p. 60, https://ww2.arb.ca.gov/rulemaking/2022/advanced-clean-cars-ii?utm_medium=email&utm_source=govdelivery..

ACC II LEV IV Regulation Costs

CARB assumed that the proposed revisions to the NMOG+NO_x fleet average regulations would not have any associated costs beyond those estimated for LEV III to phase out ZEVs to meet the fleet average NMOG+NO_x standards under ACC II. The reason for this is that the existing LEV III standards previously adopted under ACC I require all ICEV to be SULEV 30 emissions by 2025.

CARB estimated the total annual cost of compliance with the proposed ACC II LEV regulation in California as \$23,455,907. The total cost of compliance with the proposed LEV IV regulation includes the cost of certifying to US06 emission standards, reducing cold-start emissions, controlling evaporative running loss emissions, and vehicle testing costs. Total costs in California are shown in the following table.³²

Table 37: California Total Annual Cost (\$2021) of Compliance with the LEV IV Light-Duty Regulations

Model Year	US06 NMOG+NO _x	Cold-Start	Running Loss	Total Cost
2026	0	615,199	22,371	637,570
2027	0	495,355	22,371	517,726
2028	5,077,158	527,314	22,371	5,626,842
2029	4,259,891	295,615	22,371	4,577,877
2030	3,480,572	231,698	22,371	3,734,642

³² CARB, Appendix C-1, Standardized Regulatory Impact Assessment (SRIA), p. 79, https://ww2.arb.ca.gov/rulemaking/2022/advanced-clean-cars-ii?utm_medium=email&utm_source=govdelivery.

2031	2,117,315	151,802	0	2,269,118
2032	1,611,443	127,834	0	1,739,276
2033	1,566,422	143,813	0	1,710,235
2034	1,255,124	106,528	0	1,361,625
2035	1,201,073	79,896	0	1,280,969
Total	20,568,998	2,775,054	111,855	23,455,907

There will be no additional LEV IV costs of compliance in New York State. Like California, the cost of compliance with NMOG+NOx standards was covered under adoption of LEV III standards in New York. There are no additional annual costs of compliance since these costs are related to California vehicle certification and represent a one-time cost for OEMs when certifying vehicles in California.

ACC II Total Regulation Costs

The total costs of California’s ACC II ZEV and LEV IV regulations to OEMs for California compliance are estimated in the following table.

Table 38: Cumulative and Incremental Costs of the Proposed Regulation in California³³

Model Year	Total Sales	Cumulative Total Cost (\$)	Average Incremental Cost (\$)
2026	1,962,693	\$ 936,874,851	\$ 477
2027	1,970,200	\$1,219,900,383	\$ 619
2028	1,977,385	\$ 1,406,936,846	\$ 712
2029	1,984,221	\$ 1,648,844,575	\$ 831
2030	1,990,770	\$ 2,098,765,531	\$ 1,054
2031	1,996,930	\$ 2,358,137,658	\$ 1,181
2032	2,002,844	\$ 2,398,612,917	\$ 1,198
2033	2,008,417	\$2,407,834,951	\$ 1,199
2034	2,013,646	\$ 2,165,031,790	\$ 1,075
2035	2,018,543	\$ 2,258,866,756	\$ 1,119
2036	2,028,636	\$ 2,269,070,998	\$ 1,119
2037	2,038,779	\$ 2,280,416,353	\$ 1,119
2038	2,048,973	\$ 2,291,818,435	\$ 1,119
2039	2,059,218	\$ 2,303,277,527	\$ 1,119
2040	2,069,514	\$ 2,314,793,915	\$ 1,119
Average Annual	2,011,385	\$ 2,023,945,566	\$ 1,006
Total	30,170,771	\$ 30,359,183,488	\$ 1,006

³³ CARB, ISOR, Table X-8, p. 167.

The total costs of ACC II ZEV and LEV IV regulations to OEMs for New York State compliance are estimated in the following table. Total sales and cumulative total costs are scaled from California estimates using a ratio of 0.53 based on New York and California 2021 MY LDV sales.

Table 39: Cumulative and Incremental Costs of the Proposed Regulation in New York

Model Year	Total Sales	Cumulative Total Cost (\$)	Average Incremental Cost (\$)
2026	1,040,228	\$ 496,543,671	\$ 712
2027	1,044,206	\$ 646,547,203	\$ 831
2028	1,048,014	\$ 745,676,528	\$ 1,054
2029	1,051,637	\$ 873,887,625	\$ 1,181
2030	1,055,108	\$ 1,112,345,731	\$ 1,198
2031	1,058,373	\$ 1,249,812,959	\$ 1,199
2032	1,061,507	\$ 1,271,264,846	\$ 1,075
2033	1,064,461	\$ 1,276,152,524	\$ 1,119
2034	1,067,232	\$ 1,147,466,849	\$ 1,119
2035	1,069,828	\$ 1,197,199,381	\$ 1,119
2036	1,075,177	\$ 1,202,607,629	\$ 1,119
2037	1,080,553	\$ 1,208,620,667	\$ 1,119
2038	1,085,956	\$ 1,214,663,771	\$ 1,119
2039	1,091,385	\$ 1,220,737,089	\$ 1,006
2040	1,096,842	\$ 1,226,840,775	\$ 1,006
Average	1,066,034	\$ 1,072,691,150	\$1,006

Annual			
Total	15,990,509	\$ 16,090,367,249	\$1,006

The total costs of ACC II ZEV and LEV IV regulations to OEMs for New York State compliance are estimated in the following table using a combination of ICCT modeling data and scaling of California estimates. Total sales are based on ICCT MOVES3 modeling and cumulative total costs are scaled from California estimates using a ratio of 0.53 based on New York and California LDV sales.

Table 40: Cumulative and Incremental Costs of the Proposed Regulation in New York

Model Year	Total Sales	Cumulative Total Cost (\$)	Average Incremental Cost (\$)
2026	625,493	\$ 496,543,671	\$794
2027	628,674	\$ 646,547,203	\$1,028
2028	618,093	\$ 745,676,528	\$1,206
2029	634,976	\$ 873,887,625	\$1,376
2030	638,095	\$ 1,112,345,731	\$1,743
2031	645,146	\$ 1,249,812,959	\$1,937
2032	652,232	\$ 1,271,264,846	\$1,949
2033	645,469	\$ 1,276,152,524	\$1,977
2034	666,509	\$ 1,147,466,849	\$1,722
2035	673,701	\$ 1,197,199,381	\$1,777
2036	679,293	\$ 1,202,607,629	\$1,770
2037	684,931	\$ 1,208,620,667	\$1,765

2038	690,616	\$ 1,214,663,771	\$1,759
2039	696,348	\$ 1,220,737,089	\$1,753
2040	697,437	\$ 1,226,840,775	\$1,759
Average Annual	658,468	\$ 1,072,691,150	\$1,629
Total	9,877,013	\$ 16,090,367,249	\$1,629

California statewide employment impacts of ACC II adoption are shown in the following table. CARB estimates that ACC II will have a minimal, but negative impact on employment. CARB attributes the estimated negative impact on employment to increased vehicle prices, which may result in less consumer spending on other goods and services.

Table 41: Total California Employment Impacts³⁴

	2026	2028	2030	2032	2034	2036	2038	2040
California Employment	25,473,923	25,456,776	25,463,449	25,528,613	25,657,760	25,817,630	26,025,822	26,274,068
% Change	-0.02%	-0.08%	-0.16%	-0.21%	-0.23%	-0.21%	-0.18%	-0.15%
Change in Total Jobs	-4,115	-20,299	-41,176	-54,649	-59,853	-54,886	-47,582	-39,804

New York statewide employment impacts of proposed ACC II adoption are shown in the following table. DEC estimates that ACC II will have a directionally similar impact on employment for reasons like those assumed by California. New York's estimated employment

³⁴ CARB, ISOR, Table X-9, p. 169.

impacts are scaled from California estimates using a ratio of 0.53 based on New York and California LDV sales. The ratio of total non-farm statewide employment³⁵ between New York and California may also be used, which is also 0.53. New York’s statewide non-farm employment was 9,398,100 as of April 2022.³⁶ Total non-farm employment includes 7,937,300 private, 244,300 State government, 1,102,400 local government, and 114,100 federal government jobs.

Table 42: Total New York Employment Impacts

	2026	2028	2030	2032	2034	2036	2038	2040
New York Employment	13,501,179	13,492,091	13,495,628	13,530,165	13,598,613	13,683,344	13,793,686	13,925,256
% Change	-0.02%	-0.08%	-0.16%	-0.21%	-0.23%	-0.21%	-0.18%	-0.15%
Change in Total Jobs	-2,700	-10,794	-21,593	-28,413	-31,277	-28,735	-24,829	-20,888

California total employment impacts by industry due to ACC II adoption are shown in the following table. Again, CARB estimates that ACC II will have a minimal, but negative impact on total employment. CARB attributes the estimated negative impact on employment to increased vehicle prices, which may result in less consumer spending on other goods and services. CARB notes that many of the negative employment impacts represent a structural shift related to the transition from ICEVs and associated infrastructure to ZEVs and electric charging infrastructure.³⁷ This shift is illustrated by the relative increase in electric power industry employment and a decrease in petroleum industry employment.

³⁵ https://www.bls.gov/web/laus/statewide_otm_oty_change.htm

³⁶ <https://dol.ny.gov/current-employment-statistics-0>

³⁷ CARB, ISOR, p. 169.

Table 43: Employment Impacts by Primary and Secondary Industries in California³⁸

Industry	Metric	2026	2028	2030	2032	2034	2036	2038	2040
Electric power generation, transmission and distribution (2211)	% Change	0.44%	2.10%	4.73%	8.15%	11.93%	15.16%	16.96%	17.53%
	Change in Jobs	164	766	1,687	2,842	4,073	5,072	5,567	5,649
Construction (23)	% Change	-0.03%	-0.18%	-0.34%	-0.35%	-0.21%	0.03%	0.22%	0.28%
	Change in Jobs	-455	-2,360	-4,353	-4,499	-2,678	402	2,775	3,618
Petroleum and coal products manufacturing (324)	% Change	-0.27%	-1.31%	-2.85%	-4.92%	-7.30%	-9.74%	-1.62%	-12.78%
	Change in Jobs	-34	-158	-338	-574	-835	-1,095	-1,284	-1,389
Basic chemical manufacturing (3251)	% Change	-0.02%	-0.10%	0.14%	0.64%	0.95%	1.24%	1.54%	1.82%
	Change in Jobs	-2	-7	10	46	69	90	113	134
Insurance	%	0.02%	0.09%	0.19%	0.37%	0.59%	0.85%	1.06%	1.08%

³⁸ CARB, ISOR, Table X-10, p. 170.

carriers (5241)	Change								
	Change in Jobs	42	159	325	628	984	1,391	1,708	1,719
Retail trade (44-45)	% Change	-0.08%	-0.36%	-0.73%	-1.14%	-1.54%	-1.87%	-2.06%	-2.07%
	Change in Jobs	-1,580	-6,691	-13,543	-20,929	-28,090	-34,040	-37,811	-38,669
Automotive repair and maintenance (8111)	% Change	-0.33%	-1.47%	-3.06%	-5.18%	-7.80%	-10.63%	-13.07%	-13.73%
	Change in Jobs	-758	-3,416	-7,073	-11,974	-18,402	-24,586	-30,235	-31,767
State & Local Government	% Change	0.00%	-0.07%	-0.18%	-0.33%	-0.49%	-0.63%	-0.74%	-0.83%
	Change in Jobs	118	-1,686	-4,425	-8,082	-12,186	-15,732	-18,432	-20,831

New York's current statewide employment by industry is shown in the following table.³⁹

Table 44: Employment by Primary and Secondary Industries in New York

Industry	Employment
Electric power generation, transmission and distribution	6,430
Construction	311,160
Petroleum and coal products	100
Basic chemical manufacturing	4,210
Insurance carriers	104,670
Retail trade	775,980
Automotive repair and maintenance	27,320

New York's total employment impacts by industry due to proposed ACC II adoption are shown in the following table. Again, DEC estimates that ACC II will have a directionally similar impact on employment for reasons like those assumed by California. New York's estimated employment impacts are scaled from California estimates using a ratio of 0.53 based on New York and California LDV sales. The ratio of total non-farm statewide employment⁴⁰ between New York and California may also be used, which is also 0.53.

³⁹ https://www.bls.gov/oes/current/oes_ny.htm

⁴⁰ https://www.bls.gov/web/laus/statewide_otm_oty_change.htm

Table 45: Employment Impacts by Primary and Secondary Industries in New York

Industry	Metric	2026	2028	2030	2032	2034	2036	2038	2040
Electric power generation, transmission and distribution (2211)	% Change	0.44%	2.10%	4.73%	8.15%	11.93%	15.16%	16.96%	17.53%
	Change in Jobs	87	406	894	1,506	2,159	2,688	2,950	2,994
Construction (23)	% Change	-0.03%	-0.18%	-0.34%	-0.35%	-0.21%	0.03%	0.22%	0.28%
	Change in Jobs	-241	-1,251	-2,307	-2,384	-1,419	213	1,471	1,917
Petroleum and coal products manufacturing (324)	% Change	-0.27%	-1.31%	-2.85%	-4.92%	-7.30%	-9.74%	-1.62%	-12.78%
	Change in Jobs	-18	-84	-179	-304	-443	-580	-680	-736
Basic chemical manufacturing (3251)	% Change	-0.02%	-0.10%	0.14%	0.64%	0.95%	1.24%	1.54%	1.82%
	Change in Jobs	-1	-4	5	24	37	48	60	71
Insurance carriers (5241)	% Change	0.02%	0.09%	0.19%	0.37%	0.59%	0.85%	1.06%	1.08%
	Change in Jobs	22	84	172	333	521	737	905	911
Retail trade (44-45)	% Change	-0.08%	-0.36%	-0.73%	-1.14%	-1.54%	-1.87%	-2.06%	-2.07%

	Change in Jobs	-837	-3,546	-7,178	-11,092	-14,888	-18,041	-20,040	-20,495
Automotive repair and maintenance (8111)	% Change	-0.33%	-1.47%	-3.06%	-5.18%	-7.80%	-10.63%	-13.07%	-13.73%
	Change in Jobs	-402	-1,810	-3,749	-6,346	-9,753	-13,031	-16,024	-16,836
State & Local Government	% Change	0.00%	-0.07%	-0.18%	-0.33%	-0.49%	-0.63%	-0.74%	-0.83%
	Change in Jobs	62	-894	-2,345	-4,283	-6,459	-8,338	-9,769	-11,040

Monetized Health Benefits

CARB estimated the reduction in adverse health impacts attributable to the proposed adoption of ACC II in California. CARB estimates that between 2026 and 2040 there will be 1,448 fewer cardiopulmonary deaths, 237 fewer cardiovascular hospitalizations, 283 fewer respiratory illness hospitalizations, and 728 fewer asthma emergency room visits. The valuation per incident in California is shown in the following table.

Table 46: California Valuation per Incident for Avoided Health Outcomes

Outcome	Value per Incident (2020 \$)
Avoided Premature Mortality	\$10,030,076
Avoided Cardiovascular Hospitalizations	\$59,247
Avoided Acute Respiratory Hospitalizations	\$51,678
Avoided Emergency Room Visits	\$848

The Department estimated the health benefits derived from ACC II adoption in New York State from NESCAUM sponsored CO-Benefits Risk Assessment (COBRA) modeling⁴¹ based on ICCT MOVES3 modeling of ACC II in New York State (2025-2040).⁴² Adoption of ACC II would reduce on-road emissions but would increase electric generation emissions. However, New York expects to have a carbon-neutral electric grid powered by renewable sources by 2040 to comply with the CLCPA requirements. The COBRA simulation estimated \$217.06 million in annual monetized health benefits to New York from ACC II by 2040 as shown in the following table.⁴³

⁴¹ Northeast States for Coordinated Air Use Management, Health Impact Assessment of New York State Adoption of the California

⁴² The International Council on Clean Transportation, Benefits of adopting California medium- and heavy-duty vehicle regulations in New York State, May 27, 2021, <https://theicct.org/publications/nys-hdv-regulation-benefits-may2021>

⁴³ ICCT

Table 47: Annual COBRA-estimated Economic Values of New York Adopting ACC II

(\$ millions)

Analysis Year	In-State Benefit*	Out-of-State Benefit*	In-State Burden**	Out-of-State Burden**	Net Benefit***
2040	160.36	56.70	0	0	217.06

*The benefit of reduced on-road emissions

**The burden of increased electric generation emissions

***The sum of in-state and out-of-state benefits and burdens

In New York State, the proposed adoption of ACC II is estimated to result in 26 fewer cardiopulmonary deaths, 3 fewer cardiovascular hospitalizations, 2 fewer respiratory illness hospitalizations, and 6 fewer asthma emergency room visits. The valuation per incident in New York is shown in the following table.

Table 48: Valuation per Incident for Avoided Health Outcomes in New York State

Outcome	Value per Incident (2020 \$)
Avoided Premature Mortality	\$8,251,957
Avoided Cardiovascular Hospitalizations	\$50,309
Avoided Acute Respiratory Hospitalizations	\$50,531
Avoided Emergency Room Visits	\$563

Social Cost of Carbon

The monetized benefits of GHG reductions are estimated by considering the social cost of carbon (SC-CO₂). GHG emissions are often seen as a negative externality in the economy and as a market failure, and a cost that is not accounted for in market prices. The SC-CO₂ provides a present discounted value of the future damages caused by one metric ton increase in emissions into the atmosphere in that year, or equivalently, the benefits of reducing emissions by the same amount in that year. The SC-CO₂ increases over time as the effects of climate change are compounded and future emissions cause incrementally larger damage. Damage-based SC-CO₂ is established by the U.S. Interagency Working Group (federal IWG). California's SC-CO₂ benefits range from approximately \$9.5 billion to \$40.1 billion depending on the discount rate selected as shown in the following table.⁴⁴

⁴⁴ CARB, Advanced Clean Cars II Staff Report: Initial Statement of Reasons (ISOR). Table VI-5., p. 142, April 12, 2022. <https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/accii/isor.pdf>

Table 49: CA Avoided Social Cost of Carbon by Year and Discount Rate

		Avoided SC-CO ₂ (Million 2020 \$) by Discount Rate		
Year	GHG Emission Reductions (MMT)	5%	3%	2.5%
2026	0.9	\$17	\$56	\$81
2027	2.6	\$51	\$164	\$239
2028	4.7	\$93	\$302	\$438
2029	7.2	\$142	\$463	\$680
2030	10.3	\$216	\$676	\$987
2031	14.0	\$294	\$937	\$1,359
2032	18.2	\$406	\$1,242	\$1,791
2033	22.7	\$506	\$1,579	\$2,264
2034	27.9	\$659	\$1,977	\$2,819
2035	33.4	\$789	\$2,411	\$3,419
2036	38.7	\$965	\$2,844	\$4,012
2037	43.8	\$1,092	\$3,276	\$4,656
2038	48.6	\$1,276	\$3,699	\$5,230
2039	53.1	\$1,394	\$4,111	\$5,783
2040	57.4	\$1,582	\$4,519	\$6,327
TOTAL	383.5	\$9,480	\$28,255	\$40,085

The CLCPA directed the Department to establish a value of carbon for use by State agencies.

ECL § 75-0113. The Department evaluated the value of carbon for proposed adoption of ACC II

in accordance with DEC guidance established to implement this CLCPA requirement, “Establishing a Value of Carbon – Guidelines for Use by State Agencies.”⁴⁵ The DEC guidance document provides a recommended procedure for using a damages-based value of carbon along with a general review of the marginal abatement cost approach. The guidance is focused on the damages-based value as a tool to aid state agencies as they consider GHG emissions and climate change in their decision-making. This includes utilizing a 2% discount rate as the central value and provides an estimate of the dollar value of the benefits of adopting ACC II due to the GHG emission reductions that will be achieved. As noted in Table 51, this results in a total benefit of over \$20 billion, using a 2% discount rate, due to the GHG emission reductions resulting from this rulemaking.

Table 51: NY Avoided SC-CO₂ by Year and Discount Rate (ICCT MOVES3 Modeling)

		Avoided SC-CO ₂ (Million 2020 \$) by Discount Rate		
Year	GHG Emission Reductions (MMT)	3%	2%	1%
2026	0.54	29.71	68.28	219.44
2027	1.32	75.68	169.33	542.62
2028	2.30	133.87	298.97	950.46
2029	3.42	202.53	451.55	1,421.04
2030	4.74	285.44	630.74	1,979.68
2031	6.56	400.99	884.73	2,756.04

⁴⁵ NYS Department of Environmental Conservation, Establishing a Value of Carbon, <https://www.dec.ny.gov/regulations/56552.html>

2032	8.52	529.47	1,166.48	3,598.73
2033	10.61	669.56	1,462.74	4,501.53
2034	12.91	827.20	1,804.80	5,514.66
2035	15.31	995.53	2,169.37	6,567.54
2036	17.87	1,197.04	2,550.23	7,702.72
2037	20.38	1,384.70	2,947.44	8,822.52
2038	22.82	1,572.54	3,344.42	9,944.68
2039	25.18	1,759.69	3,714.89	11,022.48
2040	27.45	1,945.53	4,104.27	12,072.95
TOTAL	179.93	8,637.42	20,664.60	69,478.53

Potential Impact on Consumers

OEMs are expected to pass the cost of ACC II compliance onto New York vehicle purchasers. CARB conducted lifetime cost analysis for 2026 and subsequent model year vehicles. The analysis assumes all compliance costs are passed on to California vehicle purchasers. It can be assumed the net cost in New York would be similar, or slightly less, due to economies of scale with the addition of the New York fleet.

It is possible that consumers may choose to “pre-buy”, or accelerate, their purchase of ICEV PC, LDT, MDPV, or MDV prior to New York’s proposed adoption of ACC II regulations beginning with model year 2026. The effects of general cost increase due to the likelihood of out-of-state or used LDV and MDV purchases have shown to be unpredictable. The extent of “pre-buy” is highly uncertain and may vary due to dynamics of the industry (e.g., vehicle availability)

and global economics (e.g., fuel cost). The Department believes a “no-buy” scenario in which consumers choose to reduce purchasing of new vehicles regulated under the proposed regulations is unlikely.

Examining the effects of the ACC I standards, there was smooth growth in vehicle demand prior to, and during, the implementation of the 2012 standards. Any pre-buy response to the ACC II standards is expected to be symmetric, short-lived, and small in volume relative to the rulemaking estimates.⁴⁶ In the case that a pre-buy occurs, consumers would overall replace older, high-emitting vehicles with newer, lower emission vehicles (e.g., 2025 and newer standards).

Ultimately, consumers will seek to lower their costs. The ACC II program offers vehicles with stricter standards that can lead to fuel cost savings, as well as comprehensive extended useful life and warranty requirements that result in cost savings over time. Although ZEVs will cost more upfront due to the increased cost of components and charging infrastructure, the total cost of ownership is likely to be lower than ICEVs due to savings in operational costs from lower fuel and maintenance costs.⁴⁷ New York State currently offers incentive programs^{48, 49} for the purchase of new ZEVs and PHEVs, which may make electric vehicles an even more attractive option. Overall, any pre-buy/no buy purchases would decrease the overall cost of the ACC II program as well as diminishing its benefits.

⁴⁶ Katherine Rittenhouse and Matthew Zaragoza-Watkins, Strategic Response to Environmental Regulation: Evidence from U.S. Heavy-Duty Vehicle Air Pollution Regulations at 33, MIT CEEPR Working Paper (2016).

⁴⁷ Argonne National Laboratory. Comprehensive Total Cost of Ownership Quantification for Vehicles with Different Size Classes and Powertrains. April 2021. <https://publications.anl.gov/anlpubs/2021/05/167399.pdf>.

⁴⁸ Drive Clean Rebate for Electric Vehicles, <https://www.nyscrda.ny.gov/All-Programs/drive-clean-rebate>

⁴⁹ Municipal ZEV Vehicle Rebates, <https://www.dec.ny.gov/energy/109181.html>

Potential Impact to State and Local Government

The proposed adoption of the ACC II regulation is not expected to result in any additional costs to local and state agencies beyond those that will be experienced by consumers. State and local government may see increased sales tax revenue resulting from the increased purchase price of vehicles.

Potential Impact on Business Competitiveness

The proposed adoption of the ACC II regulation is not expected to result in any significant impact to business competitiveness.

Potential Impact on Employment

The proposed adoption of the ACC II regulation is not expected to result in any significant impact to employment. As stated previously, adoption of ACC II in New York is expected to result in minimal employment losses as increased vehicle prices impact consumer spending on other goods and services.

Potential Impact on Business Creation, Elimination or Expansion

The proposed adoption of the ACC II regulation is not expected to result in any significant impact to business creation, elimination, or expansion.

VI. Local Government Mandates

The proposed regulations do not impose a local government mandate pursuant to Executive Order 17. No additional paperwork or staffing requirements are expected. Local governments have no additional compliance obligations as compared to other subject entities.

VII. Paperwork

The ACC II regulation is unlikely to result in increased paperwork requirements for New York vehicle suppliers, dealers, or local government.

VIII. Duplication

There are no relevant state or federal rules or other requirements that would duplicate, overlap, or conflict with this rulemaking.

IX. Alternatives

The option of maintaining the current ACC I program without adopting CARB's ACC II amendments was reviewed and rejected. The primary basis for this decision was that the Department believes this is not permitted under Section 177 due to the identity requirement. New York State must maintain compliance with recent improvements in the California standards to achieve the emission reductions necessary for the attainment and maintenance of the ozone and carbon monoxide standards, as well as reductions in GHG emissions.

In addition, as noted above, the adoption of ACC II is consistent with Legislative directives to the Department, including to reduce GHG emissions as required by the CLCPA, as well as the

Legislation signed by the Governor last year that added a new ECL 19-0306-b regarding commitments to ZEV sales in New York State.

X. Federal Standards

There are no federal ZEV or LEV programs currently available as an alternative. EPA may develop a comprehensive rulemaking in 2022 for 2027 and subsequent model year vehicles. Any proposed federal program may be similar to California's ACC II regulation in stringency, but not timing. A national program could not take effect before model year 2027, creating a gap between the ACC II phase-in schedule and federal implementation. The details regarding any potential federal program are unknown while ACC II is a comprehensive regulation package that would provide more stringent emission standards and 100% ZEV sales requirements compared to current federal standards for the same vehicles.

The severity of New York State's air quality problems dictates that New York State must maintain compliance with recent improvements in the California standards to achieve necessary reductions of pollutants that aid in the formation of ground-level ozone, as well as climate change. Adhering to federal standards would impede New York's ability to attain and maintain ambient air quality standards and make reasonable further progress as required in its State Implementation Plan.

XI. Compliance Schedule

The proposed ACC II regulation would take effect beginning with 2026 model year PC, LDT, MDPV, and MDV and would require all new sales of these vehicle classes to be ZEV by 2035.

Regulatory Impact Statement Summary

6 NYCRR Part 218, Emissions Standards for Motor Vehicles and Motor Vehicle Engines

6 NYCRR Part 200, General Provisions

The New York State Department of Environmental Conservation (DEC or the Department) proposes to amend Title 6 of the New York Codes, Rules and Regulations Part 218, “Emissions Standards for Motor Vehicles and Motor Vehicle Engines”, and Part 200, “General Provisions”. New York is proposing to revise Part 218 to incorporate California’s Advanced Clean Cars II (ACC II) regulation, adopted by California on August 25, 2022. The amendments are consistent with the requirements of New York’s Climate Leadership and Community Protection Act, Chapter 106 of the Laws of 2019 (CLCPA), to further reduce greenhouse gas (GHG) emissions in the State, as well as legislation signed by Governor Hochul in 2021 (Chapter 423, Laws of 2021), which commits the State to all new, light-duty on-road vehicle sales to be zero emission vehicles (ZEV) by 2035. See Environmental Conservation Law § 19-0306-b.

The proposed amendments establish new zero emission vehicle (ZEV) and low emission vehicle (LEV IV) standards intended to reduce GHG and NMOG + NO_x (non-methane organic gas + oxides of nitrogen) emissions from light- and medium-duty on-road vehicles. The ZEV amendments include an annual ZEV sales requirement for original equipment manufacturers (OEMs), minimum technical requirements, ZEV assurance measures, regulatory flexibilities, and simplified credit accounting. The LEV IV amendments remove ZEVs from the fleet average NMOG+NO_x standard, increase the stringency of emission certification standards, increase the stringency for cold-start emission standards, increase the stringency of evaporative emission

standards, and revise standards for medium-duty vehicles. The proposed ZEV amendments will apply to 2026 and subsequent model year light-duty passenger cars (PC), light-duty trucks (LDT), and medium-duty passenger vehicles (MDPV). A MDPV is any medium-duty vehicle less than 10,000 pounds gross vehicle weight rating (GVWR) that is designed primarily for the transportation of persons. The proposed LEV IV amendments apply to 2026 and subsequent model year PC, LDT, MDPV, and medium-duty vehicles (MDV) less than 14,000 pounds GVWR.

Starting with model year 2026, OEMs, will be required to deliver an increasing annual percentage of their sales that are ZEVs or PHEVs. This percentage requirement will start at 35% in model year 2026 and increase to 100% of sales for 2035 and subsequent model years.

PHEVs may be used to meet up to 20% of the annual ZEV requirement and they must meet minimum technical requirements. The use of PHEVs to meet part of the annual ZEV requirement will sunset following the 2035 model year.

ZEVs and PHEVs will be required to meet minimum technical requirements to earn ZEV values under ACC II. ZEVs must have a minimum all-electric range (AER) of at least 150 miles and PHEVs must have a minimum AER of 50 miles and be capable of doing at least 40 miles on an aggressive drive cycle. ZEVs and PHEVs must also meet the ZEV assurance measures to be eligible to earn ZEV values. PHEVs must also be certified to super ultra-low emission vehicle (SULEV) standards and be covered by a 15 year or 150,000 mile warranty

The proposed ACC II ZEV amendments include ZEV assurance measures consisting of

durability, warranty, service information/standardized data parameters, and battery label requirements. The ZEV assurance measures will ensure that ZEVs retain functionality and reliability as internal combustion engine vehicles (ICEVs) are transitioned out of the on-road fleet.

ZEV compliance flexibilities include PHEV values, value banking, value trading, proportional fuel cell electric vehicle (FCEV) values, historical credits, pooling, early compliance values, EJ values, and simplified ZEV value accounting. Starting in model year 2026, ZEV values may be banked for up to 5 additional model years. These values may be used to offset compliance shortfalls. Values may also be traded and transferred with other OEMs to offset compliance shortfalls.

FCEV values will be capped at 10% of an OEM's annual ZEV requirement through model year 2030.

Historical credits are existing ZEV and PHEV credits earned under the ACC I program. Historical credit usage will be capped at 15% per year and will sunset following model year 2030.

ACC II will create a single pool, including California, of all states that have adopted California's ZEV regulation. Pooling will be capped starting at 25% in model year 2026 and will decline each year until sunset following model year 2030. Historical and Environmental Justice (EJ) values are ineligible for pooling.

Early compliance values will allow OEMs to earn values for 2024 and 2025 model year ACC

I ZEVs and PHEVs that meet ACC II standards. An OEM must voluntarily deliver ZEVs and PHEVs for sale in excess of 7% of their sales volume for model years 2024 and 2025. The use of early compliance values will be capped at 15% per year and will sunset following model year 2028.

The proposed voluntary ACC II EJ flexibility is intended to award extra ZEV values to OEMs that undertake programs to expand ZEV availability to low income and disadvantaged communities. Optional programs include discounted ZEVs and PHEVs placed in community-based clean mobility programs, used ZEVs and PHEVs remaining in New York following the expiration of their lease term, and making low-cost ZEVs available to low income and disadvantaged communities. EJ values will be capped at 5% per year and will sunset following model year 2031.

ZEV compliance calculations will be revised to a single model year requirement and compliance will be assessed based on actual sales for that model year. ZEVs and PHEVs that meet the AER requirements described above will each earn 1 ZEV value per vehicle.

Starting in model year 2026, the fleet average LEV IV standard will remain at 0.030 g/mi, but ZEVs will be phased out of the fleet average calculation. ZEVs will not be included in the fleet average starting in model year 2028.

The proposed ACC II amendments will introduce new, more stringent LEV IV emission certification bins and will eliminate the dirtiest, less stringent emission certification bins for PC,

LDT, and MDPV. The upper certification limit will be 0.070 g/mi and the lower limit will be 0.015 g/mi for all 2026 and subsequent model years.

The proposed ACC II amendments include new standards for cold start emissions to achieve in-use emissions benefits. A new 8-second idle certification test will be added to the FTP test to address cold start emissions that may occur due to shortened idle times. The ACC II amendments will also reduce the running loss evaporative emission standard from 0.05 g/mi to 0.01 g/mi hydrocarbon for PC, LDT, and MDPV and be phased in from model years 2026 through 2028

The ACC II amendments also include revised emission standards to control evaporative emissions from gasoline tanks with sealed, non-integrated refueling canister only systems (NIRCOS). ACC II amendments will require a minimum carbon canister size for NIRCOS equipped vehicles starting in model year 2028.

Starting in model year 2026, the Class 2b and 3 MDV fleet average standards will phase-out ZEVs from the fleet average calculations. Class 2b and 3 MDV ZEVs will not be included in the fleet averages starting in model year 2028.

The proposed ACC II amendments will introduce new, more stringent NMOG+NO_x emission certification bins and will eliminate the dirtiest, less stringent emission certification bins for Class 2b and 3 MDV. Starting in model year 2028, the highest emission certification bin will be SULEV170 (0.170 g/mi) and the lower limit will be 0.075 g/mi for all Class 2b MDV. Starting in model year 2028, the highest emission certification bin will be SULEV230 (0.230

g/mi) and the lower limit will be 0.100 g/mi for all Class 3 MDV.

ACC II will eliminate composite averaging from US06, SC03, and federal test procedure (FTP) drive cycles and require all Class 2b and 3 MDV ICEVs to certify using a new US06 aggressive drive cycle. Class 2b and 3 MDV will be required to meet the new stand-alone aggressive driving standard, which will be phased in from model years 2026 through 2028, on both the FTP test and the aggressive driving test.

New York emission benefits and WTW benefits resulting from proposed adoption of ACC II are based on ICCT MOVES3 modeling. The cumulative emissions benefits (2025-2040) of ACC II relative to a business-as-usual scenario are 15,231 tons of NO_x, 1,373 tons of PM_{2.5}, and 190 million metric tons of carbon dioxide equivalent.

Battery storage cost is the largest component of the incremental cost of a BEV. Battery costs have declined by almost 90 percent since 2010 and are expected to continue to drop. Battery costs are expected to drop from approximately \$95.3/kWh in 2026 to \$72.5/kWh in 2030. It is expected that increased OEM ZEV costs will be passed on to consumers in the form of higher purchase prices. The proposed LEV IV revisions will not have any associated costs beyond those estimated for LEV III to phase out ZEVs to meet the fleet average NMOG+NO_x standards under ACC II.

The average annual and incremental costs of ACC II ZEV and LEV IV regulations in New York State from 2026 to 2040 are estimated to be approximately \$1.1 billion and \$1,629

respectively. The Total cumulative costs are estimated to be approximately \$16.1 billion by 2024.

DEC estimates that ACC II will have a minimal, but negative impact on employment. DEC attributes the estimated negative impact on employment to increased vehicle prices, which may result in less consumer spending on other goods and services.

The Department estimated the health benefits derived from ACC II adoption in New York from CO-Benefits Risk Assessment (COBRA) modeling based on ICCT MOVES3 modeling. A COBRA simulation estimated \$217.06 million in annual monetized health benefits to New York from ACC II by 2040.

The monetized benefits of GHG reductions are estimated by considering the social cost of carbon (SC-CO₂). The Department evaluated the SC-CO₂ for proposed adoption of ACC II in accordance with DEC guidance established pursuant to the CLCPA, Establishing a Value of Carbon – Guidelines for Use by State Agencies. Using this guidance, the estimated benefits of the rule in SC-CO₂ is \$20.664 billion in cumulative avoided SC-CO₂ using a 2% discount rate.

Consumers may choose to “pre-buy”, or accelerate, their purchase of ICEV prior to New York’s proposed adoption of ACC II. The extent of “pre-buy” is highly uncertain and may vary due to vehicle availability and fuel cost. A “no-buy” scenario in which consumers choose to forego purchasing of new vehicles is unlikely. Any pre-buy response is expected to be symmetric, short-lived, and small in volume relative to the rulemaking estimates. If a pre-buy

occurs, consumers will overall replace older, high-emitting vehicles with newer, lower emission vehicles, thereby decreasing overall cost and benefit estimates.

The proposed adoption of the ACC II regulation is not expected to result in any additional costs to local and state agencies beyond those that will be experienced by consumers. State and local government may see increased sales tax revenue resulting from the increased purchase price of vehicles.

The proposed adoption of the ACC II regulation is not expected to result in any significant impact to business competitiveness. Adoption of ACC II in New York is expected to result in minimal employment losses as increased vehicle prices impact consumer spending on other goods and services.

There are no federal programs currently available as an alternative to ACC II. EPA may develop a comprehensive rulemaking in 2022 for 2027 and subsequent model year vehicles. Any proposed federal program may be comparable to California's ACC II regulation in stringency, but not timing. A national program would not take effect before model year 2027, creating a gap between the ACC II phase-in schedule and federal implementation.

The proposed ACC II regulation would take effect beginning with model year 2026 and would require all new PC, LDT, MDPV, and MDV sales to be ZEV by 2035.

6 NYCRR Part 200, General Provisions

Express Terms

(Sections 200.1 through 200.8 remain unchanged)

Section 200.9, Table 1 is amended to read as follows:

218-1.2(d)	California Code of Regulations, Title 13, Section 1962 (2-13-10)	** ***
218-1.2(e)	California Code of Regulations, Title 13, Section 1962 (2-13-10)	** ***
218-1.2(f)	Clean Air Act 42 U.S.C. Section 7543 (1988) as amended by Pub. L. 101-549 (1990)	**
	Clean Air Act 42 U.S.C. Section 7507 (1988) as amended by Pub. L. 101-549 (1990)	**
218-1.2(g)	California Health and Safety Code, Section 39003 (1975)	** †
218-1.2(j)	California Code of Regulations, Title 13, Section 1900 [(4-1-22)](11-30-22)	** ***
218-1.2(l)	California Code of Regulations, Title 13, Section 1962 (2-13-10)	** ***
	California Vehicle Code, Section 165 (2013)	** †

218-1.2(n)	California Code of Regulations, Title 13, Section 1900 [(4-1-22)](<u>11-30-22</u>)	** ***
218-1.2(q)	California Code of Regulations, Title 13, Section 1962.1 (1-1-16)	** ***
218-1.2(w)	California Code of Regulations, Title 13, Section 1900 [(4-1-22)](<u>11-30-22</u>)	** ***
218-1.2(y)	California Code of Regulations, Title 13, Section 1900 [(4-1-22)](<u>11-30-22</u>)	** ***
218-1.2(z)	California Code of Regulations, Title 13, Section 1900 [(4-1-22)](<u>11-30-22</u>)	** ***
218-1.2(ab)	California Code of Regulations, Title 13, Section 1900 [(4-1-22)](<u>11-30-22</u>)	** ***
218-1.2(ac)	California Code of Regulations, Title 13, Section 1900 [(4-1-22)](<u>11-30-22</u>)	** ***
218-1.2(ad)	California Code of Regulations, Title 13, Section 1905 (7-3-96)	** ***
218-1.2(af)	California Code of Regulations, Title 13, Section 1900 [(4-1-22)](<u>11-30-22</u>)	** ***
218-1.2(aj)	California Code of Regulations, Title 13, Section 1962 (2-13-10)	** ***
218-1.2(ak)	California Code of Regulations, Title 13, Section 1960.5 (10-16-02)	** ***

218-1.2(ap)	California Code of Regulations, Title 13, Section 1900 [(4-1-22)](<u>11-30-22</u>)	** ***
218-1.2(aq)	California Code of Regulations, Title 13, Section 1900 [(4-1-22)](<u>11-30-22</u>)	** ***
218-1.2(at)	40 CFR Section 86.1827-01 (2-26-07)	*
218-1.2(az)	California Code of Regulations, Title 13, Section 2112 [(4-1-22)](<u>11-30-22</u>)	** ***
218-1.2(bc)	California Code of Regulations, Title 13, Section 1962 (2-3-10)	** ***
218-1.2(bd)	California Code of Regulations, Title 13, Section 1900 [(4-1-22)](<u>11-30-22</u>)	** ***
218-1.2(be)	California Code of Regulations, Title 13, Section 2035(4-1-22)	** ***
218-1.2(bf)	California Code of Regulations, Title 13, Section 2035 (4-1-22)	** ***
218-1.2(bg)	California Code of Regulations, Title 13, Section 2035 (4-1-22)	** ***
218-1.2(bh)	California Code of Regulations, Title 13, Section 2035 (4-1-22)	** ***
218-1.2(bi)	California Code of Regulations, Title 13, Section 1900 [(4-1-22)](<u>11-30-22</u>)	** ***
218-1.2(bj)	New York Consolidated Laws, Chapter 61- A, Article 1 § 2. (9-22-14)	**

218-2.1(a)	California Code of Regulations, Title 13, Section 1956.8 (4-1-22)	** ***
	California Code of Regulations, Title 13, Section 1956.9 (3-6-96)	** ***
	California Code of Regulations, Title 13, Section 1960.1 (12-31-12)	** ***
	California Code of Regulations, Title 13, Section 1960.1.5 (9-30-91)	** ***
	California Code of Regulations, Title 13, Section 1960.5 (10-16-02)	** ***
	California Code of Regulations, Title 13, Section 1961 (12-31-12)	** ***
	California Code of Regulations, Title 13, Section 1961.1 (8-7-12)	** ***
	California Code of Regulations, Title 13, Section 1961.2 [(4-1-22)](11-30-22)	** ***
	California Code of Regulations, Title 13, Section 1961.3 [(12-12-18)](11-30-22)	** ***
	<u>California Code of Regulations, Title 13,</u> <u>Section 1961.4 (11-30-22)</u>	<u>**</u> <u>***</u>
	California Code of Regulations, Title 13, Section 1962 (2-13-10)	** ***

California Code of Regulations, Title 13, Section 1962.1 (1-1-16)	** ***
California Code of Regulations, Title 13, Section 1962.2 [(1-1-16)](11-30-22)	** ***
<u>California Code of Regulations, Title 13,</u> <u>Section 1962.3 (11-30-22)</u>	<u>**</u> <u>***</u>
<u>California Code of Regulations, Title 13,</u> <u>Section 1962.4 (11-30-22)</u>	<u>**</u> <u>***</u>
<u>California Code of Regulations, Title 13,</u> <u>Section 1962.5 (11-30-22)</u>	<u>**</u> <u>***</u>
<u>California Code of Regulations, Title 13,</u> <u>Section 1962.6 (11-30-22)</u>	<u>**</u> <u>***</u>
<u>California Code of Regulations, Title 13,</u> <u>Section 1962.7 (11-30-22)</u>	<u>**</u> <u>***</u>
<u>California Code of Regulations, Title 13,</u> <u>Section 1962.8 (11-30-22)</u>	<u>**</u> <u>***</u>
California Code of Regulations, Title 13, Section 1963 (3-15-21)	** ***
California Code of Regulations, Title 13, Section 1963.1 (3-15-21)	** ***
California Code of Regulations, Title 13, Section 1963.2 (3-15-21)	** ***

California Code of Regulations, Title 13, Section 1963.3 (3-15-21)	** ***
California Code of Regulations, Title 13, Section 1963.4 (3-15-21)	** ***
California Code of Regulations, Title 13, Section 1963.5 (3-15-21)	** ***
California Code of Regulations, Title 13, Section 1964 (2-23-90)	** ***
California Code of Regulations, Title 13, Section 1965 [(4-1-22)](11-30-22)	** ***
California Code of Regulations, Title 13, Section 1968.1 (11-27-99)	** ***
California Code of Regulations, Title 13, Section 1968.2 [(4-1-22)](11-30-22)	** ***
<u>California Code of Regulations, Title 13,</u> <u>Section 1969 (11-30-22)</u>	<u>**</u> <u>***</u>
California Code of Regulations, Title 13, Section 1971.1 (4-1-22)	** ***
California Code of Regulations, Title 13, Section 1976 [(10-8-15)](11-30-22)	** ***
California Code of Regulations, Title 13, Section 1978 [(10-8-15)](11-30-22)	** ***

	California Code of Regulations, Title 13, Section 2030 (9-15-14)	** ***
	California Code of Regulations, Title 13, Section 2031 (9-15-14)	** ***
	California Code of Regulations, Title 13, Section 2047 (5-31-88)	** ***
	California Code of Regulations, Title 13, Section 2065 (4-1-19)	** ***
	California Code of Regulations, Title 13, Section 2235 (10-1-19)	** ***
	Clean Air Act 42 U.S.C. Section 7521 (1988) as amended by Pub. L. 101-549 (1990)	**
218-2.1(b)(5)	Clean Air Act 42 U.S.C. Section 7401 <i>et</i> <i>seq.</i> (1988) as amended by Pub. L. 101-549 (1990)	**
218-2.1(b)(8)	California Code of Regulations, Title 13, Section 1956.8(a)(2)(F) (4-1-22)	** ***
218-2.1(b)(9)	California Health and Safety Code, Section 43656 (1975)	***
218-2.1(d)	Clean Air Act 42 U.S.C. Section 7507 (1988) as amended by Pub. L. 101-549 (1990)	**

218-2.4	California Health and Safety Code, Section 43014 (1976)	** †
218-3.1	California Code of Regulations, Title 13, Section 1956.8 (4-1-22)	** ***
	California Code of Regulations, Title 13, Section 1960.1(g)(2) (12-31-12)	** ***
	California Code of Regulations, Title 13, Section 1961(b)(1) (12-31-12)	** ***
	California Code of Regulations, Title 13, Section 1961.2 [(4-1-22)](11-30-22)	** ***
	<u>California Code of Regulations, Title 13,</u> <u>Section 1961.4 (11-30-22)</u>	<u>**</u> <u>***</u>
218-3.1(a)	California Code of Regulations, Title 13, Section 1960.1(g)(1) (12-31-12)	** ***
	California Code of Regulations, Title 13, Section 1961.2 [(4-1-22)](11-30-22)	** ***
	<u>California Code of Regulations, Title 13,</u> <u>Section 1961.4 (11-30-22)</u>	<u>**</u> <u>***</u>
218-3.1(b)	California Code of Regulations, Title 13, Section 1956.8 (4-1-22)	** ***
	California Code of Regulations, Title 13, Section 1960.1(g)(2) (12-31-12)	** ***

	California Code of Regulations, Title 13, Section 1961(b) (12-31-12)	** ***
	California Code of Regulations, Title 13, Section 1961.2 [(4-1-22)](11-30-22)	** ***
	<u>California Code of Regulations, Title 13,</u> <u>Section 1961.4 (11-30-22)</u>	<u>**</u> <u>***</u>
218-4.1(a)	California Code of Regulations, Title 13, Section 1962 (2-13-10)	** ***
	California Code of Regulations, Title 13, Section 1962.1 (1-1-16)	** ***
	California Code of Regulations, Title 13, Section 1962.2 [(1-1-16)](11-30-22)	** ***
	<u>California Code of Regulations, Title 13,</u> <u>Section 1962.3 (11-30-22)</u>	<u>**</u> <u>***</u>
	<u>California Code of Regulations, Title 13,</u> <u>Section 1962.4 (11-30-22)</u>	<u>**</u> <u>***</u>
	<u>California Code of Regulations, Title 13,</u> <u>Section 1962.5 (11-30-22)</u>	<u>**</u> <u>***</u>
	<u>California Code of Regulations, Title 13,</u> <u>Section 1962.6 (11-30-22)</u>	<u>**</u> <u>***</u>
	<u>California Code of Regulations, Title 13,</u> <u>Section 1962.7 (11-30-22)</u>	<u>**</u> <u>***</u>

	<u>California Code of Regulations, Title 13,</u> <u>Section 1962.8 (11-30-22)</u>	** ***
218-4.1(b)	California Code of Regulations, Title 13, Section 1963 (3-15-21)	** ***
	California Code of Regulations, Title 13, Section 1963.1 (3-15-21)	** ***
	California Code of Regulations, Title 13, Section 1963.2 (3-15-21)	** ***
	California Code of Regulations, Title 13, Section 1963.3 (3-15-21)	** ***
	California Code of Regulations, Title 13, Section 1963.4 (3-15-21)	** ***
	California Code of Regulations, Title 13, Section 1963.5 (3-15-21)	** ***
	218-4.2	California Code of Regulations, Title 13, Section 2012 (3-15-21)
California Code of Regulations, Title 13, Section 2012.1 (3-15-21)		** ***
California Code of Regulations, Title 13, Section 2012.2 (3-15-21)		** ***
218-5.1(a)	California Code of Regulations, Title 13, Section 2061 (10-23-96)	** ***

	California Code of Regulations, Title 13, Section 2062 (8-7-12)	** ***
	California Code of Regulations, Title 13, Section 2065 (4-1-19)	** ***
218-5.2(a)	California Code of Regulations, Title 13, Section 2065 (4-1-19)	** ***
	California Code of Regulations, Title 13, Section 2109 (12-30-83)	** ***
	California Code of Regulations, Title 13, Section 2110 (11-27-99)	** ***
218-5.2(b)(1)	California Code of Regulations, Title 13, Section 2106 (11-27-99)	** ***
218-5.3(b)	California Code of Regulations, Title 13, Section 2101 (11-27-99)	** ***
218-6.2	Clean Air Act 42 U.S.C. Section 7401 <i>et.</i> <i>seq.</i> (1988) as amended by Pub. L. 101-549 (1990)	**
218-7.2(c)(1)	California Code of Regulations, Title 13, Section 2222 (1-1-22)	** ***
218-7.2(c)(2)	California Code of Regulations, Title 13, Section 2222 (1-1-22)	** ***
218-7.1(c)(8)	California Code of Regulations, Title 13, Section 2222 (1-1-22)	** ***

218-7.3(a)(1)	California Code of Regulations, Title 13, Section 2221 (12-30-83)	** ***
	California Code of Regulations, Title 13, Section 2224 (1-1-22)	** ***
218-7.3(a)(2)	California Code of Regulations, Title 13, Section 2224(a) (1-1-22)	** ***
218-7.4(b)(3)(i)	California Code of Regulations, Title 13, Section 2222 (1-1-22)	** ***
218-7.4(b)(3)(ii)	California Code of Regulations, Title 13, Section 2222 (1-1-22)	** ***
218-7.5(b)	California Code of Regulations, Title 13, Section 2222 (1-1-22)	** ***
218-8.1(a)	California Code of Regulations, Title 13, Section 1961.1 (8-7-12)	** ***
218-8.1(b)	California Code of Regulations, Title 13, Section 1961.1 (8-7-12)	** ***
218-8.2(a)	California Code of Regulations, Title 13, Section 1961.1 (8-7-12)	** ***
	California Code of Regulations, Title 13, Section 1961.3 [(12-12-18)](11-30-22)	** ***

218-8.2(b)	California Code of Regulations, Title 17, Section 95660 (12-5-14)	** ***
<u>218-8.2(b)</u>	California Code of Regulations, Title 17, Section 95661 (12-5-14)	** ***
	California Code of Regulations, Title 17, Section 95662 (12-22-21)	** ***
	California Code of Regulations, Title 17, Section 95663 (12-22-21)	** ***
218-8.3(a)	California Code of Regulations, Title 13, Section 1961.1 (8-7-12)	** ***
	California Code of Regulations, Title 13, Section 1961.3 [(12-12-18)](<u>11-30-22</u>)	** ***
218-8.3(b)	California Code of Regulations, Title 17, Section 95660 (12-5-14)	** ***
218-8.3(b)	California Code of Regulations, Title 17, Section 95661 (12-5-14)	** ***
	California Code of Regulations, Title 17, Section 95662 (12-22-21)	** ***

	California Code of Regulations, Title 17, Section 95663 (12-22-21)	** ***
218-8.3(c)	California Code of Regulations, Title 13, Section 1956.8 (4-1-22)	** ***
218-8.3[b](c)	California Code of Regulations, Title 13, Section 1961.1 (8-7-12)	** ***
	California Code of Regulations, Title 13, Section 1961.3 [(12-12-18)](11-30-22)	** ***
	California Code of Regulations, Title 17, Section 95663 (12-22-21)	** ***
218-8.3(d)	California Code of Regulations, Title 13, Section 1961.1 (8-7-12)	** ***
	California Code of Regulations, Title 13, Section 1961.3 [(12-12-18)](11-30-22)	** ***
218-8.3(e)	California Code of Regulations, Title 13, Section 1961.1 (8-7-12)	** ***
	California Code of Regulations, Title 13, Section 1961.3 [(12-12-18)](11-30-22)	** ***
218-8.4(a)	California Code of Regulations, Title 13, Section 1961.1 (8-7-12)	** ***
218-8.4(b)	California Code of Regulations, Title 13, Section 1961.1 (8-7-12)	** ***

218-8.5(c)	California Code of Regulations, Title 13, Section 1961.1 (8-7-12)	** ***
	California Code of Regulations, Title 13, Section 1961.3 [(12-12-18)](11-30-22)	** ***
218-9.1	California Code of Regulations, Title 13, Section 2035 (4-1-22)	** ***
	California Code of Regulations, Title 13, Section 2036 (4-1-22)	** ***
	California Code of Regulations, Title 13, Section 2037 [(4-1-19)](11-30-22)	** ***
	California Code of Regulations, Title 13, Section 2038 [(8-7-12)](11-30-22)	** ***
	California Code of Regulations, Title 13, Section 2039 (12-26-90)	** ***
	California Code of Regulations, Title 13, Section 2040 (10-1-19)	** ***
	California Code of Regulations, Title 13, Section 2041 (12-26-90)	** ***
	California Code of Regulations, Title 13, Section 2046 (2-16-79)	** ***
218-9.2	California Code of Regulations, Title 13, Section 2141 (4-1-22)	** ***

	California Code of Regulations, Title 13, Section 2142 (4-1-22)	** ***
	California Code of Regulations, Title 13, Section 2143 (4-1-22)	** ***
	California Code of Regulations, Title 13, Section 2144 (4-1-22)	** ***
	California Code of Regulations, Title 13, Section 2145 (4-1-22)	** ***
	California Code of Regulations, Title 13, Section 2146 (4-1-22)	** ***
	California Code of Regulations, Title 13, Section 2147 [(4-1-22)](11-30-22)	** ***
	California Code of Regulations, Title 13, Section 2148 (4-1-22)	** ***
	California Code of Regulations, Title 13, Section 2149 (4-1-22)	** ***
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