

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, 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 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)	***
218-1.2(m)	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)](<u>11-30-22</u>)	** ***
	California Code of Regulations, Title 13, Section 1961.3 [(12-12-18)](<u>11-30-22</u>)	** ***
	<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, 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, 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 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)	** ***
218-10.1	California Code of Regulations, Title 13, Section 2109 (12-30-83)	** ***
	California Code of Regulations, Title 13, Section 2110 (11-27-99)	** ***
	California Code of Regulations, Title 13, Section 2111 (4-1-22)	** ***

	California Code of Regulations, Title 13, Section 2112 [(4-1-22)](11-30-22)	** ***
	California Code of Regulations, Title 13, Section 2113 (4-1-22)	** ***
	California Code of Regulations, Title 13, Section 2114 (4-1-22)	** ***
	California Code of Regulations, Title 13, Section 2115 (4-1-22)	** ***
	California Code of Regulations, Title 13, Section 2116 (4-1-22)	** ***
	California Code of Regulations, Title 13, Section 2117 (4-1-22)	** ***
	California Code of Regulations, Title 13, Section 2118 (4-1-22)	** ***
	California Code of Regulations, Title 13, Section 2119 (4-1-22)	** ***
	California Code of Regulations, Title 13, Section 2120 (1-26-95)	** ***
	California Code of Regulations, Title 13, Section 2121 (4-1-22)	** ***
	California Code of Regulations, Title 13, Section 2122 (12-8-10)	** ***

	California Code of Regulations, Title 13, Section 2123 (4-1-22)	** ***
	California Code of Regulations, Title 13, Section 2124 (1-26-95)	** ***
	California Code of Regulations, Title 13, Section 2125 (4-1-22)	** ***
	California Code of Regulations, Title 13, Section 2126 (4-1-22)	** ***
	California Code of Regulations, Title 13, Section 2127 (4-1-22)	** ***
	California Code of Regulations, Title 13, Section 2128 (4-1-22)	** ***
	California Code of Regulations, Title 13, Section 2129 (4-1-22)	** ***
	California Code of Regulations, Title 13, Section 2130 (4-1-22)	** ***
	California Code of Regulations, Title 13, Section 2131 (4-1-22)	** ***
	California Code of Regulations, Title 13, Section 2132 (1-26-95)	** ***
	California Code of Regulations, Title 13, Section 2133 (4-1-22)	** ***

	California Code of Regulations, Title 13, Section 2134 (1-26-95)	** ***
	California Code of Regulations, Title 13, Section 2135 (1-26-95)	** ***
	California Code of Regulations, Title 13, Section 2136 (12-8-10)	** ***
	California Code of Regulations, Title 13, Section 2137 (4-1-22)	** ***
	California Code of Regulations, Title 13, Section 2138 (11-27-99)	** ***
	California Code of Regulations, Title 13, Section 2139 [(4-1-22)](<u>11-30-22</u>)	** ***
	California Code of Regulations, Title 13, Section 2140 [(4-1-22)](<u>11-30-22</u>)	** ***
	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)	** ***
218-10.2	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)	** ***
	California Code of Regulations, Title 13, Section 2166 (4-1-22)	** ***
	California Code of Regulations, Title 13, Section 2166.1 (4-1-22)	** ***
	California Code of Regulations, Title 13, Section 2167 (4-1-22)	** ***
	California Code of Regulations, Title 13, Section 2168 (4-1-22)	** ***
	California Code of Regulations, Title 13, Section 2169 (4-1-22)	** ***

	California Code of Regulations, Title 13, Section 2169.1 (4-1-22)	** ***
	California Code of Regulations, Title 13, Section 2169.2 (4-1-22)	** ***
	California Code of Regulations, Title 13, Section 2169.3 (4-1-22)	** ***
	California Code of Regulations, Title 13, Section 2169.4 (4-1-22)	** ***
	California Code of Regulations, Title 13, Section 2169.5 (4-1-22)	** ***
	California Code of Regulations, Title 13, Section 2169.6 (4-1-22)	** ***
	California Code of Regulations, Title 13, Section 2169.7 (4-1-22)	** ***
	California Code of Regulations, Title 13, Section 2169.8 (4-1-22)	** ***
218-11.1	California Code of Regulations, Title 13, Section 1965 [(4-1-22)] <u>(11-30-22)</u>	** ***
218-11.2	California Code of Regulations, Title 13, Section 1965 [(4-1-22)] <u>(11-30-22)</u>	** ***

Revised 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) adopted amendments to 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 revising 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 adopted 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 adopted 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 adopted 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 adopted 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 adopted 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 in New York State. 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 2029.

The adopted 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 adopted 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 adopted 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 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 adopted 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 cost of ACC II ZEV and LEV IV regulations in New York State from 2026 to 2040 is estimated to be approximately \$1.1 billion. The average incremental cost from 2026-2035 is approximately \$1,514. 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 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 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.

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.

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 adopted 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.

Revised 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) adopted amendments to 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 adopted 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 will phase-out 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

adopted 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 adopted 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 completion of this rulemaking 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

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

reduction of GHG emissions. For example, the CLCPA contains a new ECL Article 75, which 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 has adopted 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 adopted 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 are estimated to 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 In December 2022, the CAC published the Scoping Plan and recommended adoption of ACC II.¹⁶

ACC II Zero Emission Vehicle Standards

¹⁴ NYSEDA, 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>

¹⁶ Climate Action Council, Scoping Plan, Full Report. December, 2022. <https://climate.ny.gov/resources/scoping-plan/>

New York has adopted revisions to Part 218 to incorporate California’s ACC II regulation package, adopted by California on August 25, 2022, consisting of regulations intended to reduce GHG and NMOG + NOx emissions from light- and medium-duty on-road vehicles. The adopted 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 to be ZEVs or PHEVs. This percentage requirement will start at 35% of sales starting in model year 2026 and increase to 100% of sales for 2035 and subsequent model years.¹⁷ 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
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¹⁷ CARB, [1](https://www2.arb.ca.gov/sites/default/files/barcu/regact/2022/accii/2accii1962.4.pdf), [Final Regulation Order, Title 13, Section 1962.4©\(1\)\(B\).](https://www2.arb.ca.gov/sites/default/files/barcu/regact/2022/accii/2accii1962.4.pdf)
<https://www2.arb.ca.gov/sites/default/files/barcu/regact/2022/accii/2accii1962.4.pdf>

	Requirement
2026	35%
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). 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 adopted regulations like ACC II to help meet this target. ECL § 19-0306-b. 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. 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. PHEVs 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 adopted 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 adopted 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 adopted 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 6% or 75 vehicles, the vehicle manufacturer must submit a corrective action plan that may include actions up to a recall.

The adopted 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 adopted 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 adopted battery label measure will require all traction batteries used in BEVs, FCEVs, or PHEVs to be labeled to support secondary use and recycling efforts. A battery information label must also be affixed to the vehicle's hood or door jamb. 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

The ACC II regulation provides OEMs with several ZEV compliance flexibilities. These 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 that adopted California’s ZEV standards, would earn a 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 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 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. The use of pooled ZEV values in a given state will be capped at 25% starting 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.¹⁸

¹⁸ CARB, ISOR. Table III-2, p. 46.

Table 2: Proposed Pooling Declining Cap

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 compliance 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 of an OEM's ZEV obligation 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 by pollution. The ACC II EJ flexibility is voluntary for OEMs and 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. These optional EJ value programs include discounted price ZEVs/PHEVs placed in community-based clean mobility programs, used ZEVs/PHEVs re-sold in New York State following the expiration of their lease term, and making new, low-cost ZEVs available. EJ values will be capped at 5% per year of an OEM's ZEV obligation 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 2024 through 2031 model year ZEVs and PHEVs.

Used ZEVs and PHEVs Following Lease Expiration

OEMS may earn an additional 0.10 ZEV value for each 2026 through 2031 model year previously leased ZEV and PHEV sold by a New York State dealership following expiration of the initial lease term. OEMs may earn an additional 0.15 ZEV value for each used ZEV and PHEV if an eligible vehicle is sold to an eligible financial assistance program participant, for a maximum of 0.25 values per vehicle. Disadvantaged community is defined as being located within census block groups that meet the Housing and Urban Development (HUD) 50% Area Median Income (AMI) threshold¹⁹, that are also located within the DEC Potential Environmental Justice Areas²⁰; or are located within New York State Opportunity Zones.²¹

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

OEMs may earn an additional 0.10 ZEV value for making low-cost 2026 through 2028 model year ZEVs and PHEVs available in New York State. Values may be earned for passenger cars with a manufacturer suggested retail price (MSRP) under \$20,275 and for light-duty trucks with a MSRP under \$26,670.

¹⁹ <https://www.nyserda.ny.gov/ny/disadvantaged-communities>

²⁰ <https://www.dec.ny.gov/public/911.html>

²¹ <https://esd.ny.gov/opportunity-zones>

Table 3: ACC II Regulatory Flexibility Caps by Model Year

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	Additional Value Per PHEV	Additional Value Per ZEV
Community Program	0.40	0.50
Used ZEV	0.25 max.	0.25 max.
Low-Cost Vehicles	0.10	0.10

Simplified ZEV Credit Accounting

The adopted 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 ZEV requirement and compliance will be initially assessed based on actual ZEV 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 adopted LEV IV revisions include the following elements:

- Revised fleet average standards to prevent backsliding
- Revised 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
- Revised 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 progressively phased-out of the fleet average calculation. 60% of ZEVs will be counted in the fleet average in model year 2026. 30% of ZEVs will be counted in the fleet average in model year 2027. 15% of ZEVs will be included in the fleet average starting in model year 2028.

ZEVs will not be included in the fleet average in model year 2029 and beyond. 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 adopted 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 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, beginning with model year 2029, the new 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+NO_x Fleet Average Emission Certification Bins

Emission Certification Bin	NMOG+NO _x (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 adopted 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 2026²². 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	Maximum % of vehicles certified to 6 mg/mi standard	Minimum % of vehicles certified to 3 mg/mi standard
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²² California Code of Regulations (CCR), Title 13, Section 1961.4(d)(3)(A)4.a.
[https://govt.westlaw.com/calregs/Document/I42B3EB107B9E11EDA8A9DEC7E923577F?viewType=FullText&listSource=Search&originationContext=Search+Result&transitionType=SearchItem&contextData=\(sc.Search\)&navigationPath=Search%2fv1%2fresults%2fnavigation%2fi0ad62d3400000186bd3bff71ced735da%3fppcid%3d6ee07323c1614404a1f059ced491be67%26Nav%3dREGULATION_PUBLICVIEW%26fragmentIdentifier%3dI42B3EB107B9E11EDA8A9DEC7E923577F%26startIndex%3d1%26transitionType%3dSearchItem%26contextData%3d%2528sc.Default%2529%26originationContext%3dSearch%2520Result&list=REGULATION_PUBLICVIEW&rank=1&t_T1=13&t_T2=1961.4&t_S1=CA+ADC+s](https://govt.westlaw.com/calregs/Document/I42B3EB107B9E11EDA8A9DEC7E923577F?viewType=FullText&listSource=Search&originationContext=Search+Result&transitionType=SearchItem&contextData=(sc.Search)&navigationPath=Search%2fv1%2fresults%2fnavigation%2fi0ad62d3400000186bd3bff71ced735da%3fppcid%3d6ee07323c1614404a1f059ced491be67%26Nav%3dREGULATION_PUBLICVIEW%26fragmentIdentifier%3dI42B3EB107B9E11EDA8A9DEC7E923577F%26startIndex%3d1%26transitionType%3dSearchItem%26contextData%3d%2528sc.Default%2529%26originationContext%3dSearch%2520Result&list=REGULATION_PUBLICVIEW&rank=1&t_T1=13&t_T2=1961.4&t_S1=CA+ADC+s)

2026	100	0
2027	75	25
2028	50	50
2029	25	75
2030 and Subsequent	0	100

Current aggressive driving certification standards for NMOG+NO_x and CO allow for the use of composite results averaging results from US06, SC03, and federal test procedure (FTP) drive cycles.²³ 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+NO_x and CO Aggressive Driving Emission Standards

US06 Stand-Alone Aggressive Driving Emission Standards		
FTP Bin	NMOG+NO _x (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

²³ <https://www.epa.gov/vehicle-and-fuel-emissions-testing/dynamometer-drive-schedules>

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 shorter duration partial soaks have higher emissions than full soaks. ACC II is adopting new emission standards for cold start emissions to achieve greater in-use emissions benefits. The new cold soak emission standards and phase-in schedule²⁴ are shown in the following tables.

Table 9: Emission Control for All Vehicle Soaks

²⁴ CCR, Title 13, Section 1961.4(d)(2)(B).

[https://govt.westlaw.com/calregs/Document/I42B3EB107B9E11EDA8A9DEC7E923577F?viewType=FullText&listSource=Search&originationContext=Search+Result&transitionType=SearchItem&contextData=\(sc.Search\)&navigationPath=Search%2fv1%2fresults%2fnavigation%2fi0ad62d3400000186bd3bff71ced735da%3fppcid%3d6ee07323c1614404a1f059ced491be67%26Nav%3dREGULATION_PUBLICVIEW%26fragmentIdentifier%3dI42B3EB107B9E11EDA8A9DEC7E923577F%26startIndex%3d1%26transitionType%3dSearchItem%26contextData%3d%2528sc.Default%2529%26originationContext%3dSearch%2520Result&list=REGULATION_PUBLICVIEW&rank=1&t_T1=13&t_T2=1961.4&t_S1=CA+ADC+s](https://govt.westlaw.com/calregs/Document/I42B3EB107B9E11EDA8A9DEC7E923577F?viewType=FullText&listSource=Search&originationContext=Search+Result&transitionType=SearchItem&contextData=(sc.Search)&navigationPath=Search%2fv1%2fresults%2fnavigation%2fi0ad62d3400000186bd3bff71ced735da%3fppcid%3d6ee07323c1614404a1f059ced491be67%26Nav%3dREGULATION_PUBLICVIEW%26fragmentIdentifier%3dI42B3EB107B9E11EDA8A9DEC7E923577F%26startIndex%3d1%26transitionType%3dSearchItem%26contextData%3d%2528sc.Default%2529%26originationContext%3dSearch%2520Result&list=REGULATION_PUBLICVIEW&rank=1&t_T1=13&t_T2=1961.4&t_S1=CA+ADC+s)

Vehicle Emission Category	10-minute soak	40-minute soak	3-hour to 12-hour soak
ULEV125	0.063	0.096	0.125
ULEV70	0.035	0.054	0.070
ULEV60	0.030	0.046	0.060
ULEV50	0.025	0.038	0.050
ULEV40	0.020	0.031	0.040
SULEV30	0.015	0.023	0.030
SULEV25	0.013	0.019	0.025
SULEV20	0.010	0.015	0.020
SULEV15	0.008	0.012	0.015

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

Model Year	2026	2027	2028 and subsequent
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 adopted emission standards²⁵ 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+NOx (g/mi)
ULEV125	0.125
ULEV70	0.082
ULEV60	0.072
ULEV50	0.062
ULEV40	0.052
SULEV30	0.042
SULEV25	0.037
SULEV20	0.032
SULEV15	0.027

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

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

²⁵ Title 13, CCR 1964.1(d)(2)(C)1.a.

before the traction battery is depleted and enters charge sustaining mode. High power cold starts are unique to blended PHEVs. ACC II will require blended PHEVs to certify to a new cold start emission standard for the US06 test. The adopted blended PHEV high power cold start emission standards and phase-in schedule²⁶ are shown in the following tables.

Table 13: PHEV High Power Cold Start Emissions Standards

Vehicle Emission Category	<i>NMOG+NO_x (g/mi)</i>	
	2026 to 2028 MY	2029 and Subsequent MY
ULEV125	0.350	0.250
ULEV70	0.320	0.200
ULEV60	0.280	0.175
ULEV50	0.240	0.150
ULEV40	0.200	0.125
SULEV30	0.150	0.100
SULEV25	0.125	0.083
SULEV20	0.100	0.067
SULEV15	0.075	0.050

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

²⁶ CCR, Title 13, Section 1961.4(d)(3)(B).

[https://govt.westlaw.com/calregs/Document/I42B3EB107B9E11EDA8A9DEC7E923577F?viewType=FullText&listSource=Search&originationContext=Search+Result&transitionType=SearchItem&contextData=\(sc.Search\)&navigationPath=Search%2fv1%2fresults%2fnavigation%2fi0ad62d3400000186bd3bff71ced735da%3fppcid%3d6ee07323c1614404a1f059ced491be67%26Nav%3dREGULATION_PUBLICVIEW%26fragmentIdentifier%3dI42B3EB107B9E11EDA8A9DEC7E923577F%26startIndex%3d1%26transitionType%3dSearchItem%26contextData%3d%2528sc.Default%2529%26originationContext%3dSearch%2520Result&list=REGULATION_PUBLICVIEW&rank=1&t_T1=13&t_T2=1961.4&t_S1=CA+ADC+s](https://govt.westlaw.com/calregs/Document/I42B3EB107B9E11EDA8A9DEC7E923577F?viewType=FullText&listSource=Search&originationContext=Search+Result&transitionType=SearchItem&contextData=(sc.Search)&navigationPath=Search%2fv1%2fresults%2fnavigation%2fi0ad62d3400000186bd3bff71ced735da%3fppcid%3d6ee07323c1614404a1f059ced491be67%26Nav%3dREGULATION_PUBLICVIEW%26fragmentIdentifier%3dI42B3EB107B9E11EDA8A9DEC7E923577F%26startIndex%3d1%26transitionType%3dSearchItem%26contextData%3d%2528sc.Default%2529%26originationContext%3dSearch%2520Result&list=REGULATION_PUBLICVIEW&rank=1&t_T1=13&t_T2=1961.4&t_S1=CA+ADC+s)

	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 been in place 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 adopted 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 MDPV²⁷. 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

²⁷ CCR, Title 13, Section 1976(b)(1)(H).

[https://govt.westlaw.com/calregs/Document/I40A7E4807B4811ED9DB1963C6C2FB9A8?viewType=FullText&listSource=Search&originationContext=Search+Result&transitionType=SearchItem&contextData=\(sc.Search\)&navigationPath=Search%2fv1%2fresults%2fnavigation%2fi0ad62d3300000186bd54f513c2da579c%3fpccid%3d7eea7f2bcd0d47fb8df2fc42ec615309%26Nav%3dREGULATION_PUBLICVIEW%26fragmentIdentifier%3dI40A7E4807B4811ED9DB1963C6C2FB9A8%26startIndex%3d1%26transitionType%3dSearchItem%26contextData%3d%2528sc.Default%2529%26originationContext%3dSearch%2520Result&list=REGULATION_PUBLICVIEW&rank=1&t_T1=13&t_T2=1976&t_S1=CA+ADC+s](https://govt.westlaw.com/calregs/Document/I40A7E4807B4811ED9DB1963C6C2FB9A8?viewType=FullText&listSource=Search&originationContext=Search+Result&transitionType=SearchItem&contextData=(sc.Search)&navigationPath=Search%2fv1%2fresults%2fnavigation%2fi0ad62d3300000186bd54f513c2da579c%3fpccid%3d7eea7f2bcd0d47fb8df2fc42ec615309%26Nav%3dREGULATION_PUBLICVIEW%26fragmentIdentifier%3dI40A7E4807B4811ED9DB1963C6C2FB9A8%26startIndex%3d1%26transitionType%3dSearchItem%26contextData%3d%2528sc.Default%2529%26originationContext%3dSearch%2520Result&list=REGULATION_PUBLICVIEW&rank=1&t_T1=13&t_T2=1976&t_S1=CA+ADC+s)

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 adopted ACC II amendments include new in-use requirements for 2026 and subsequent model year chassis certified MDV over 14,000 pounds gross combination weight rating (GCWR) 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 adopted 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. As such, 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 MDV²⁸ 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

²⁸ CCR, Title 13, Section 1961.4(e)(2)(A).

[https://govt.westlaw.com/calregs/Document/I42B3EB107B9E11EDA8A9DEC7E923577F?viewType=FullText&listSource=Search&originationContext=Search+Result&transitionType=SearchItem&contextData=\(sc.Search\)&navigationPath=Search%2fv1%2fresults%2fnavigation%2fi0ad62d3400000186bd3bff71ced735da%3fpccid%3d6ee07323c1614404a1f059ced491be67%26Nav%3dREGULATION_PUBLICVIEW%26fragmentIdentifier%3dI42B3EB107B9E11EDA8A9DEC7E923577F%26startIndex%3d1%26transitionType%3dSearchItem%26contextData%3d%2528sc.Default%2529%26originationContext%3dSearch%2520Result&list=REGULATION_PUBLICVIEW&rank=1&t_T1=13&t_T2=1961.4&t_S1=CA+ADC+s](https://govt.westlaw.com/calregs/Document/I42B3EB107B9E11EDA8A9DEC7E923577F?viewType=FullText&listSource=Search&originationContext=Search+Result&transitionType=SearchItem&contextData=(sc.Search)&navigationPath=Search%2fv1%2fresults%2fnavigation%2fi0ad62d3400000186bd3bff71ced735da%3fpccid%3d6ee07323c1614404a1f059ced491be67%26Nav%3dREGULATION_PUBLICVIEW%26fragmentIdentifier%3dI42B3EB107B9E11EDA8A9DEC7E923577F%26startIndex%3d1%26transitionType%3dSearchItem%26contextData%3d%2528sc.Default%2529%26originationContext%3dSearch%2520Result&list=REGULATION_PUBLICVIEW&rank=1&t_T1=13&t_T2=1961.4&t_S1=CA+ADC+s)

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. As such, 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 MDV²⁹ 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
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²⁹ CCR, Title 13, Section 1961.4(e)(2)(A).

[https://govt.westlaw.com/calregs/Document/I42B3EB107B9E11EDA8A9DEC7E923577F?viewType=FullText&listSource=Search&originationContext=Search+Result&transitionType=SearchItem&contextData=\(sc.Search\)&navigationPath=Search%2fv1%2fresults%2fnavigation%2fi0ad62d3400000186bd3bff71ced735da%3fppcid%3d6ee07323c1614404a1f059ced491be67%26Nav%3dREGULATION_PUBLICVIEW%26fragmentIdentifier%3dI42B3EB107B9E11EDA8A9DEC7E923577F%26startIndex%3d1%26transitionType%3dSearchItem%26contextData%3d%2528sc.Default%2529%26originationContext%3dSearch%2520Result&list=REGULATION_PUBLICVIEW&rank=1&t_T1=13&t_T2=1961.4&t_S1=CA+ADC+s](https://govt.westlaw.com/calregs/Document/I42B3EB107B9E11EDA8A9DEC7E923577F?viewType=FullText&listSource=Search&originationContext=Search+Result&transitionType=SearchItem&contextData=(sc.Search)&navigationPath=Search%2fv1%2fresults%2fnavigation%2fi0ad62d3400000186bd3bff71ced735da%3fppcid%3d6ee07323c1614404a1f059ced491be67%26Nav%3dREGULATION_PUBLICVIEW%26fragmentIdentifier%3dI42B3EB107B9E11EDA8A9DEC7E923577F%26startIndex%3d1%26transitionType%3dSearchItem%26contextData%3d%2528sc.Default%2529%26originationContext%3dSearch%2520Result&list=REGULATION_PUBLICVIEW&rank=1&t_T1=13&t_T2=1961.4&t_S1=CA+ADC+s)

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+NO_x 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+NOx (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

The adoption of California's ACC II regulation is expected to significantly reduce NOx, PM2.5, and GHG emissions as internal combustion engine vehicles will be replaced with zero-emission vehicles. Zero-emission vehicles produce no tailpipe emissions, reduce particulate

matter emissions from brake wear, and have lower upstream emissions. The Department has estimated the emission reduction benefits associated with the adoption of California's ACC II regulation from two sources:

1. The Department applied a scaling factor to California's ACC II emission reductions to estimate New York State emission reductions.
2. The International Council on Clean Transportation (ICCT) evaluated the benefits of New York State's adoption of ACC II. The ICCT analysis utilized EPA's Motor Vehicle Emissions Simulator (MOVES3) model at the county scale using 2017 National Emissions Inventory (NEI) representative counties.

California estimated the emissions benefits of ACC II using CARB's EMFAC2021 and Vision models. EMFAC2021³⁰ is a California-specific emissions model. The California Vision model³¹ 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.

³⁰ <https://arb.ca.gov/emfac/>

³¹ <https://ww2.arb.ca.gov/resources/documents/vision-scenario-planning>

Table 21: California 2025 Baseline LDV Sales and Sales Percentages by Vehicle**Technology³²**

	ICEV		PHEV		BEV		FCEV	
Calendar	Vehicle	Sales	Vehicle	Sales	Vehicle	Sales	Vehicle	Sales
Year	Sales	%	Sales	%	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%

³² CARB, ISOR, Appendix C-1. Table 4. p. 22.

Table 22: ACC II Blended and Non-Blended PHEV eVMT Fractions³³

Model	LDA	LDA	LDT	LDT
Year	Blended	Non-Blended	Blended	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 PHEVs³⁴

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

³³ CARB, ISOR, Appendix D. Table 1. p. 3.

³⁴ CARB, ISOR, Appendix D. Table 2. p. 4.

Table 24: California ZEV (BEV+FCEV) and PHEV Sales Fractions for ACC II³⁵

MY	BEV300		BEV400		PHEV		FCEV	
	Original	Final	Original	Final	Original	Final	Original	Final
2026	31.4%	31.4%	0.0%	0.0%	3.3%	3.3%	0.3%	0.3%
2027	39.4%	39.4%	0.0%	0.0%	3.3%	3.3%	0.3%	0.3%
2028	45.3%	46.8%	0.0%	0.0%	5.4%	3.9%	0.3%	0.3%
2029	46.8%	46.8%	0.1%	8.0%	11.8%	3.9%	0.3%	0.3%
2030	48.0%	48.0%	5.7%	13.7%	11.8%	3.9%	2.5%	2.5%
2031	48.0%	48.0%	13.4%	21.3%	11.8%	3.9%	2.8%	2.8%
2032	48.0%	48.0%	19.4%	27.3%	11.8%	3.9%	2.8%	2.8%
2033	48.0%	48.0%	25.4%	33.3%	11.8%	3.9%	2.8%	2.8%
2034	48.0%	48.0%	38.5%	38.5%	4.7%	4.7%	2.8%	2.8%
2035	48.0%	48.0%	40.0%	40.0%	9.2%	9.2%	2.8%	2.8%

³⁵ CAR2033B, FSOR, Appendix F, Table II-5. p. 7.

Table 25: Emission Bins for California ICEV Fleet for Model 2026 and Beyond³⁶

Model Year	LDA, LDT1		LDT2,LDT3			
	ULEV50	SULEV30	ULEV125	ULEV70	ULEV50	SULEV30
2026	5.0%	49.85%	7.5%	5.00%	22.00%	44.15%
2027	5.0%	43.54%	4.00%	5.00%	13.80%	45.57%
2028	--	41.48%	4.00%	--	11.00%	44.11%
2029	--	30.17%	--	--	--	55.56%
2030	--	18.85%	--	--	--	49.69%
2031	--	8.20%	--	--	--	45.25%
2032	--	3.77%	--	--	--	37.14%
2033	--	1.47%	--	--	--	26.16%
2034	--	--	--	--	--	14.07%
2035+	--	--	--	--	--	--

³⁶ CARB, ISOR, Appendix D, Table 5. p. 7.

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

Table 26: California Statewide ACC II Upstream Emissions Relative to Baseline³⁷

Calendar Year	NOx (TPD)	PM2.5 (TPD)	CO2 (MMT/Year) ^a
2026	0.07	0.00	(0.05)
2027	0.19	0.01	(0.09)
2028	0.35	0.02	(0.13)
2029	0.53	0.03	(0.21)
2030	0.76	0.05	(0.30)
2031	1.07	0.08	(0.28)
2032	1.42	0.12	(0.18)
2033	1.83	0.17	(0.00)
2034	2.32	0.24	0.28
2035	2.85	0.31	0.61
2036	3.38	0.39	1.01
2037	3.92	0.47	1.47
2038	4.47	0.55	1.98
2039	5.02	0.65	2.52
2040	5.58	0.74	3.10

a – Values in () represent emissions increase

³⁷ CARB, ISOR, Appendix D, Table 5. p. 11.

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)³⁸

Calendar Year	NOx (TPD)	PM2.5 (TPD)	CO2 (MMT/Year)
2026	0.6	0.0	0.9
2027	1.5	0.1	2.6
2028	2.7	0.1	4.8
2029	4.1	0.2	7.6
2030	5.7	0.3	10.9
2031	7.7	0.4	14.8
2032	9.8	0.6	19.2
2033	12.1	0.7	23.9
2034	14.6	0.9	29.1
2035	17.3	1.1	34.5
2036	20.0	1.3	39.8
2037	22.6	1.5	44.9
2038	25.3	1.7	49.6
2039	27.8	1.9	54.1
2040	30.4	2.0	58.4

³⁸ CARB, FSOR, Appendix F, Table III-1. p. 8.

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 Regulation³⁹

Calendar Year	NOx (TPD)	PM2.5 (TPD)	CO2 (MMT/Year)
2026	0.6	0.0	0.9
2027	1.5	0.1	2.6
2028	2.6	0.1	4.7
2029	4.0	0.2	7.2
2030	5.6	0.3	10.3
2031	7.5	0.4	14.0
2032	9.5	0.6	18.2
2033	11.8	0.7	22.7
2034	14.4	0.9	27.9
2035	17.0	1.1	33.4
2036	19.7	1.3	38.7
2037	22.4	1.5	43.8
2038	25.0	1.6	48.6
2039	27.6	1.8	53.1
2040	30.1	2.0	57.4

³⁹ CARB, ISOR, Appendix D, Table 9. p. 17.

New York State emission benefits and WTW benefits resulting from adoption of ACC II are based on ICCT MOVES3 modeling.⁴⁰ The International Council on Clean Transportation (ICCT) evaluated the benefits of New York State’s adoption of ACC II. The ICCT analysis utilized EPA’s Motor Vehicle Emissions Simulator (MOVES3) model at the county scale using 2017 National Emissions Inventory (NEI) representative counties. The annual and cumulative emissions benefits of ACC II relative to a business-as-usual scenario are shown in the following Tables 29-31.

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

	ICEV		PHEV		BEV+FCEV	
Calendar	Vehicle	Sales	Vehicle	Sales	Vehicle	Sales
Year	Sales	%	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%

⁴⁰ <https://www.dec.ny.gov/chemical/8394.html>

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	0.26	0.02	0.71
2027	0.60	0.04	1.83
2028	0.94	0.07	3.19
2029	1.27	0.10	4.73
2030	1.52	0.13	6.44
2031	1.94	0.18	8.39
2032	2.36	0.22	10.42
2033	2.74	0.26	12.44
2034	3.06	0.30	14.55
2035	3.29	0.34	16.63
2036	3.82	0.37	18.76
2037	4.32	0.40	20.61
2038	4.79	0.43	22.24
2039	5.22	0.45	23.66
2040	5.60	0.46	24.91

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	1,675	132	16.9
By 2035	6,564	601	79.3
By 2040	15,231	1,373	189.5

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 Final Statement of Reasons (FSOR), Appendix F.⁴¹

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.

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

⁴¹. <https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/accii/fsorappf.pdf>

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.⁴² Battery costs are expected to drop from approximately \$95.3/kWh in 2026 to \$72.5/kWh in 2030.⁴³ CARB's updated estimates of total battery costs are shown in the following tables 32-35.⁴⁴

Table 32: BEV300 Total Battery Costs (2021\$) for Model Years 2026 Through 2035

Vehicle Class	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
SmallCar	6248	5782	5350	4951	4784	4522	4274	4040	3819	3610
MedCar	6450	5968	5523	5110	4938	4667	4412	4170	3942	3726
SmallSUV	6727	62285	5761	5331	5151	4869	4602	4350	4112	3887
MedSUV	8138	7530	6968	6448	6230	5889	5567	5262	4974	4702
Pickup	10387	9612	8894	8230	7952	7517	7105	6716	6349	6001

Table 33: BEV400 Total Battery Costs (2021\$) for Model Years 2026 Through 2035

Vehicle Class	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
SmallCar	9257	8566	7927	7335	7087	6699	6332	5986	5658	5348
MedCar	9565	8851	8190	7579	7323	6922	6543	6185	5846	5526

⁴² https://ww2.arb.ca.gov/rulemaking/2022/advanced-clean-cars-ii?utm_medium=email&utm_source=govdelivery. Appendix C-1. Pg. 51.

⁴³ https://ww2.arb.ca.gov/rulemaking/2022/advanced-clean-cars-ii?utm_medium=email&utm_source=govdelivery. Appendix C-1. Pg. 52.

⁴⁴ CARB, Final Statement of Reasons (FSOR), Appendix F, Updated Costs and Benefits Analysis, Table II-1-II-4, p. 6, <https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/accii/fsorappf.pdf>

SmallSUV	9953	9210	8522	7886	7620	7203	6808	6435	6083	5750
MedSUV	12011	11115	10285	9517	9196	8693	8217	7767	7342	6940
Pickup	15338	14193	13134	12153	11743	11100	10493	9918	9375	8862

Table 34: PHEV50 Total Battery Costs (2021\$) for Model Years 2026 Through 2035

Vehicle Class	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
SmallCar	1966	1819	1683	1557	1465	1385	1309	1238	1170	1106
MedCar	2086	1931	1787	1653	1555	1470	1390	1314	1242	1174
SmallSUV	2499	2312	2140	1980	1863	1761	1664	1573	1487	1406
MedSUV	2713	2510	2323	2149	2022	1912	1807	1708	1614	1526
Pickup	3366	3112	2879	2664	2507	2370	2240	2117	2001	1892

Table 35: FCEV300 Total Battery Costs (2021\$) for Model Years 2026 Through 2035

Vehicle Class	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
SmallCar	580	578	576	573	571	563	556	548	540	533
MedCar	696	681	665	650	634	626	617	609	601	592
SmallSUV	761	745	729	713	698	676	654	633	613	592
MedSUV	761	745	729	713	698	688	679	670	661	651
Pickup	954	938	921	904	888	864	840	816	793	770

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.⁴⁵

Table 36: 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

⁴⁵ 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.⁴⁶

Table 37: Fuel Cell System Cost (\$/vehicle)

	Model Year									
Vehicle Type	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

⁴⁶ https://ww2.arb.ca.gov/rulemaking/2022/advanced-clean-cars-ii?utm_medium=email&utm_source=govdelivery.
Appendix C-1. Pg. 59.

Table 38: Hydrogen Tank Cost (\$/vehicle)

	Model Year									
Vehicle Type	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.⁴⁷

Table 39: Estimated Delete Engine Costs (\$/vehicle)

⁴⁷CARB, 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..

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.

ACC II LEV IV Regulation Costs

CARB assumed that the adopted 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 adopted ACC II LEV regulation in California as \$18,807,094. The total cost of compliance with the adopted 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.⁴⁸

Table 40: California Total Annual Cost (\$2020) of Compliance with the LEV IV Light-Duty Regulations

Model Year	US06 NMOG+NO _x	Cold-Start	Running Loss	Final Total Cost
2026	0	543,293	0	543,293
2027	0	423,449	0	423,449
2028	4,100,204	495,355	17,043	4,612,602
2029	3,410,470	263,657	17,043	3,691,170
2030	2,671,602	197,077	17,043	2,885,722
2031	2,033,563	157,129	17,043	2,207,735
2032	1,563,084	133,160	17,043	1,713,287
2033	1,110,719	101,202	0	1,211,920
2034	734,963	79,896	0	814,859
2035	617,835	85,222	0	703,057

⁴⁸ CARB, Final Statement of Reasons (FSOR), Appendix F, Updated Costs and Benefits Analysis, Table VI-2, p. 15, <https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/accii/fsorappf.pdf>

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 and incremental costs of California's ACC II ZEV and LEV IV regulations to OEMs for California compliance are estimated in the following tables.

Table 41: Cumulative Total Costs of the Adopted Regulation in California⁴⁹

Model Year	Total Sales	Final Cumulative Total Cost (Millions 2020\$) ⁵⁰
2026	1,962,693	\$864
2027	1,970,200	\$1,110
2028	1,977,385	\$1,307
2029	1,984,221	\$1,627
2030	1,990,770	\$2,174
2031	1,996,930	\$2,358
2032	2,002,844	\$2,327

⁴⁹ CARB, ISOR, Table X-8, p. 167.

⁵⁰ CARB, FSOR, Appendix F. Table VI-3. p. 16

2033	2,008,417	\$2,268
2034	2,013,646	\$2,165
2035	2,018,543	\$2,259
2036	2,028,636	\$2,269
2037	2,038,779	\$2,280
2038	2,048,973	\$2,292
2039	2,059,218	\$2,303
2040	2,069,514	\$2,315
Average Annual	2,011,385	\$1,995
Total	30,170,771	\$29,918

**Table 42: Average Incremental Costs of the Adopted Regulation in California
(2020\$)⁵¹**

MY	Original Average Incremental Cost	Final Average Incremental Cost
2026	\$477	\$440
2027	\$619	\$563
2028	\$712	\$661
2029	\$831	\$819
2030	\$1,054	\$1,092
2031	\$1,181	\$1,181
2032	\$1,198	\$1,161

⁵¹ CARB, FSOR, Appendix F. Table VI-1. p. 14.

2033	\$1,199	\$1,129
2034	\$1,075	\$1,075
2035	\$1,119	\$1,119

The total and incremental 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 43: Cumulative Total Costs of the Adopted Regulation in New York

Model Year	Total Sales	Final Cumulative Total Cost (Millions 2020\$)
2026	1,040,228	\$458
2027	1,044,206	\$588
2028	1,048,014	\$693
2029	1,051,637	\$862
2030	1,055,108	\$1,152
2031	1,058,373	\$1,250
2032	1,061,507	\$1,233
2033	1,064,461	\$1,202
2034	1,067,232	\$1,147
2035	1,069,828	\$1,197
2036	1,075,177	\$1,203

2037	1,080,553	\$1,208
2038	1,085,956	\$1,215
2039	1,091,385	\$1,221
2040	1,096,842	\$1,227
Average Annual	1,066,034	\$1,057
Total	15,990,509	\$15,856

Table 44: Average Incremental Costs of the Adopted Regulation in New York (2020\$)

MY	Original Average Incremental Cost	Final Average Incremental Cost
2026	\$477	\$440
2027	\$619	\$563
2028	\$712	\$661
2029	\$831	\$819
2030	\$1,054	\$1,092
2031	\$1,181	\$1,181
2032	\$1,198	\$1,161
2033	\$1,199	\$1,129
2034	\$1,075	\$1,075
2035	\$1,119	\$1,119

The total and incremental costs of ACC II ZEV and LEV IV regulations to OEMs for New York State compliance are estimated in the following tables 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 45: Cumulative Total Costs of the Adopted Regulation in New York

Model Year	Total Sales	Final Cumulative Total Cost (Millions 2020\$)
2026	625,493	\$458
2027	628,674	\$588
2028	618,093	\$693
2029	634,976	\$862
2030	638,095	\$1,152
2031	645,146	\$1,250
2032	652,232	\$1,233
2033	659,353	\$1,202
2034	666,509	\$1,147
2035	673,701	\$1,197
2036	679,293	\$1,203
2037	684,931	\$1,208
2038	690,616	\$1,215
2039	696,348	\$1,221
2040	697,437	\$1,227
Average	658,468	\$1,057

Annual		
Total	9,877,013	\$15,857

Table 46: Average Incremental Costs of the Adopted Regulation in New York (2020\$)

MY	Original Average Incremental Cost	Final Average Incremental Cost
2026	\$794	\$732
2027	\$1,028	\$935
2028	\$1,206	\$1,121
2029	\$1,376	\$1,357
2030	\$1,743	\$1,805
2031	\$1,937	\$1,937
2032	\$1,949	\$1,890
2033	\$1,977	\$1,862
2034	\$1,777	\$1,721
2035	\$1,770	\$1,777

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 47: Total California Employment Impacts⁵²

⁵² CARB, FSOR, Table VI-5, p. 18.

Year	2026	2028	2030	2032	2034	2036	2038	2040
% of California baseline change	-0.02%	-0.08%	-0.16%	-0.22%	-0.24%	-0.21%	-0.19%	-0.16%
Change in total jobs	-3,893	-19,159	-40,535	-55,274	-60,424	-55,136	-48,584	-40,816
Jobs gained	145	0	0	0	1,501	5,520,	14,366	24,995
Jobs foregone	-4,039	-19,159	-40,535	-55,274	-61,926	-60,656	-62,950	-65,811
Natural resources	-27	-116	-232	-348	-445	-526	-586	-624
Construction	-419	-2,151	-4,146	-4,468	-2,655	465	2,713	3,571
Manufacturing	65	-201	-391	-290	139	931	1,663	2,272
Retail and wholesale	-1,773	-7,640	-16,062	-24,877	-32,916	-39,244	-43,234	-43,948
Transportation and public utilities	-142	-612	-1,191	-1,354	-1,079	-549	-231	136
Finance, insurance, and real estate	-143	-551	-1,050	-389	1,362	4,124	6,572	8,013
Services	-1,534	-6,159	-12,877	-14,976	-12,106	-4,125	3,419	11,057
Government	81	-1,728	-4,586	-8,573	-12,725	-16,213	-18,899	-21,239

New York statewide employment impacts of adopted 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 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 employment⁵³ 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 2022.⁵⁴ 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 48: 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

⁵³ https://www.bls.gov/web/laus/statewide_otm_oty_change.htm

⁵⁴ <https://dol.ny.gov/current-employment-statistics-0>

transition from ICEVs and associated infrastructure to ZEVs and electric charging infrastructure.⁵⁵

This shift is illustrated by the relative increase in electric power industry employment and a decrease in petroleum industry employment.

Table 49: Employment Impacts by Primary and Secondary Industries in California⁵⁶

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

⁵⁵ CARB, ISOR, p. 169.

⁵⁶ CARB, ISOR, Table X-10, p. 170.

chemical manufacturing (3251)	Change								
	Change in Jobs	-2	-7	10	46	69	90	113	134
Insurance carriers (5241)	% Change	0.02%	0.09%	0.19%	0.37%	0.59%	0.85%	1.06%	1.08%
	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	%	0.00%	-0.07%	-0.18%	-0.33%	-0.49%	-0.63%	-0.74%	-0.83%
	Change								
	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.⁵⁷

Table 50: 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 employment⁵⁸ between New York and California may also be used, which is also 0.53.

⁵⁷ https://www.bls.gov/oes/current/oes_ny.htm

⁵⁸ https://www.bls.gov/web/laus/statewide_otm_oty_change.htm

Table 51: 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

The adoption of ACC II would reduce NOx and PM2.5 emissions, resulting in health benefits for New Yorkers, especially those who operate vehicles or live in close proximity to roadways. These health benefits include fewer instances of premature mortality, fewer hospital and emergency room visits, and fewer missed days at school and work. CARB relied on the National Ambient Air Quality Standard for PM as well as various EPA studies to quantify the health risk from exposure to PM. The Department estimated the health benefits derived from ACC II adoption in New York from two sources:

1. CARB's ACC II Health Benefits
2. NESCAUM sponsored CO-Benefits Risk Assessment (COBRA) modeling based on ICCT MOVES3 modeling of ACC II in New York State

CARB estimated the reduction in adverse health impacts attributable to the adoption of ACC

II in California. CARB estimates that between 2026 and 2040 there will be 1,287 fewer cardiopulmonary deaths, 211 fewer cardiovascular hospitalizations, 252 fewer respiratory illness hospitalizations, and 647 fewer asthma emergency room visits.⁵⁹ The valuation per incident in California is shown in the following table.

Table 52: California Valuation per Incident for Avoided Health Outcomes⁶⁰

Outcome	Value per Incident (millions 2020 \$)
Avoided Premature Mortality	\$1287
Avoided Cardiovascular Hospitalizations	\$211
Avoided Acute Respiratory Hospitalizations	\$252
Avoided Emergency Room Visits	\$647
Total Health Benefit	\$12,936.7

The Department estimated the health benefits derived from ACC II adoption in New York State from NESCAUM sponsored CO-Benefits Risk Assessment (COBRA) modeling⁶¹ based on ICCT MOVES3 modeling of ACC II in New York State (2025-2040).⁶² 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

⁵⁹ CARB, FSOR, Appendix F, Table IV-1, p. 12.

⁶⁰ CARB, FSOR, Table IV-2, p. 12.

⁶¹ Northeast States for Coordinated Air Use Management, Health Impact Assessment of New York State Adoption of the California

⁶² 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>

comply with the CLCPA requirements. The COBRA simulation estimated \$1,493 million in annual monetized health benefits to New York from ACC II by 2040 as shown in the following table.⁶³

Table 53: 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	1,163.4	329.6	0	0	1,493

*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 adoption of ACC II is estimated to result in 181 fewer cardiopulmonary deaths, 21 fewer cardiovascular hospitalizations, 15 fewer respiratory illness hospitalizations, and 45 fewer asthma emergency room visits. The valuation per incident in New York is shown in the following table.

Table 54: Valuation per Incident for Avoided Health Outcomes in New York State

Outcome	Value per Incident (2020 \$)
Avoided Premature Mortality	\$11,270,728
Avoided Cardiovascular Hospitalizations	\$50,312

⁶³ ICCT

Avoided Acute Respiratory Hospitalizations	\$50,570
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).

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 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.”⁶⁴ 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

⁶⁴ NYS Department of Environmental Conservation, Establishing a Value of Carbon, <https://www.dec.ny.gov/regulations/56552.html>

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 55: 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
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

Table 56: Benefit-Cost Ratio and Net Benefits for ACC II Adoption in New York for 2026-2040 (billions 2020\$) – MOVES3 modeling, COBRA Health Risk Simulation, California Rulemaking with Scaling⁶⁵

Total Costs ⁶⁶	Cost Savings (benefit) ⁶⁷	Health Benefits	Tax and Fee Revenue ⁶⁸	Social Cost of Carbon	Total Benefit	Net Benefit	Benefit Cost Ratio
\$111.48	\$160.72	\$1.49	-\$7.82	\$20.66	\$175.05	\$63.57	1.57

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

⁶⁵ CARB, FSOR, Appendix F. Table VI-9. p. 22

⁶⁶ CARB, FSOR, Appendix F. Table VI-4. p. 17

⁶⁷ CARB, FSOR, Appendix F. Table VI-4. p. 17

⁶⁸ CARB, FSOR, Appendix F. Table VI-4. p. 17

ICEV PC, LDT, MDPV, or MDV prior to New York’s 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 adopted 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.⁶⁹ 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.⁷⁰ New York State currently offers incentive programs^{71, 72} for the purchase of new ZEVs and PHEVs, which may make electric vehicles an even more attractive option. Overall,

⁶⁹ 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).

⁷⁰ 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>.

⁷¹ Drive Clean Rebate for Electric Vehicles, <https://www.nyserda.ny.gov/All-Programs/drive-clean-rebate>

⁷² Municipal ZEV Vehicle Rebates, <https://www.dec.ny.gov/energy/109181.html>

any pre-buy/no buy purchases would decrease the overall cost of the ACC II program as well as diminishing its benefits.

Potential Impact to State and Local Government

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

Potential Impact on Employment

The 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 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 adopted 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 adopted 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.

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 adopted 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 adopted 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 adopted 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 adopted 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.

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

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 adopted 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 adopted 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 adopted 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 adopted 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 adopted 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 adopted 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 adopted 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 adopted 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 adopted 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 held a virtual public hearing on March 1, 2023, to provide information on the adopted regulation and solicit public comments. Additionally, there was a public comment period in which interested parties may submit written comments. A total of 777 comments were received.

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 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 adopted 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 adopted 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 adopted 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 adopted 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 adopted 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 adopted 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 adopted rule.

4. Compliance costs:

The adopted 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 adopted 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 adopted 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 adopted 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 held a virtual public hearing on March 1, 2023, on the adopted amendments and solicited public comments. Small businesses and local governments had the opportunity to attend this public hearing. Additionally, there was a public comment period in which interested parties including small businesses and local governments may submit written comments. A total of 777 comments were received.

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.

Summary of the Assessment of Public to Comments

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

The New York State Department of Environmental Conservation (Department) is proposing to amend 6 New York Codes, Rules, and Regulations, Part 218, Emission Standards for Motor Vehicles and Motor Vehicle Engines, to incorporate California's Advanced Clean Cars II (ACC II) zero emission vehicle (ZEV) and low emission vehicle IV (LEV IV) standards for light- and medium-duty vehicles.

Most of the more than 4,400 comments including those by vehicle manufacturers, environmental groups, and non-governmental organizations supported the Department's ACC II adoption. The remaining six commenters, including a large manufacturer of diesel engines and a petroleum industry trade group, were opposed to the regulation. Comments covered topics including general support for and opposition to the regulation, emergency adoption, authority to adopt, public notice, ZEV sales mandate, medium-duty vehicle in-use testing, vehicle availability and affordability, incentives, environmental and health benefits, legal issues, environmental justice, economic impacts, infrastructure, miscellaneous, and topics that were beyond the scope of this rulemaking.

Most commenters supported the Department's ACC II adoption citing New York's climate change goals and the requirements of the Climate Leadership and Community Protection Act (CLCPA), Chapter 106 of the Laws of 2019, as well as legislative goals requiring 100% new ZEV sales by 2025 set forth in Chapter 423 of the Laws of 2021. Several stated adoption of ACC II was vital given the transportation sector's disproportionate impact on mobile source criteria pollutant and greenhouse gas (GHG) emissions. The Department emphasized the importance of ACC II adoption for both criteria and GHG pollutant reduction, to support the GHG emission reduction requirements of the CLCPA (see Environmental Conservation Law Article 75), and to support the

statutory goal that one hundred percent zero-emissions MHD vehicles in the State by 2045, as set forth in recently adopted legislation (Chapter 423 of the Laws of 2021).

Comments were received in support and opposition to the emergency adoption of the ACC II regulation. Some commenters believed emergency adoption was justified and necessary, while others believed it was improper or illegal given the scope of the regulation. Comments were also received supporting the Department's authority to adopt the ACC II regulation. Comments were received alleging insufficient public notice and an inherent bias in favor of environmental groups.

Comments were received in support of the manufacturer ZEV sales mandate. Commenters stated the mandates were achievable and early credit provisions provided flexibility. They also stated that the ACC II regulations were aligned with the CLCPA and Chapter 423, Laws of 2021, requirements. New York state has supporting programs and will evaluate these programs to determine if they should be expanded or if additional programs are needed.

Comments were received from a large manufacturer of diesel engines opposing the ACC II requirements for medium-duty vehicle in-use testing requirements. The commenter requested the Department revert to federal in-use testing requirements or adopt New York standards different than ACC II standards. The requested revisions would create indenticality issues under Section 177 of the Clean Air Act. The commenter expressed interest in continued dialogue and engagement with all stakeholders.

Some commenters questioned the availability and affordability of ZEVs, while other commenters stated ZEVs were available in growing numbers, were affordable, and consumers desired purchasing them in growing numbers. Two EV only manufacturers expressed support for the ACC II regulations. Several commenters stated

ZEVs have lower total cost of ownership than internal combustion engine vehicles (ICEVs), while others stated ZEVs were too expensive to purchase and operate. Some commenters stated more support for used ZEVs was necessary to make ZEVs more accessible to consumers.

Many commenters stated investments in purchase incentives are required before ACC II could be successfully adopted. The development of these complementary programs is outside of the scope of this rulemaking. Other commenters states that utility rate rebates were also necessary. While outside the scope of this rulemaking, the Department is engaged with state agencies and authorities to address this issue.

Many commenters stated that ACC II would have significant health and environmental benefits and that motor vehicles are a significant source of pollution. Some comments stated adoption of ACC II was irrelevant given the volume of emissions from China. Many commenters provided estimated health benefits, reduced numbers of deaths, and economic benefits that would result from adoption of ACC II. Other comments questioned the Department's estimates of emissions and health benefits and the sufficiency of the associated methodologies and modeling.

One commenter raised several alleged legal and procedural issues with the adoption of ACC II in New York. These comments alleged that the Department's environmental and economic analyses were insufficient, arbitrary, and capricious. The commenter also alleged the Department's rulemaking lacked regulatory authority and was preempted by federal law and ongoing legal cases. The Department finds no legal or procedural issues that preclude New York from adopting ACT. New York has areas currently classified as serious non-attainment which justifies the need to adopt these regulations to achieve attainment with the national ambient air quality standards. Waiver of preemption is not necessary until California enforces its standards.

Several commenters stated that ACC II will result in increased job opportunities and stimulate development of ZEVs. Many commenters stated that current high gas prices make this a perfect time to transition to ZEVs under ACC II. Many commenters stated that ZEVs will save consumers thousands of dollars through reduced operating expenses. One commenter stated that it was incorrect for the Department to assume that vehicle manufacturers would pass the cost of compliance on to consumers. This commenter also alleged that consumers of ICEVs were unjustly being forced to subsidize the purchase of ZEV credits by vehicle manufacturers so they could demonstrate compliance with the Department's emissions regulations. A commenter alleged that the Department's analysis was insufficient and did not appropriately account for incentives, battery supply chain costs, impact of pre-buy/no-buy scenarios. Some commenters stated ACT adoption in New York would place New York vehicle dealerships at a competitive disadvantage with out-of-state dealerships. Vehicles purchased out-of-state would be required to meet the ACC II requirements to be registered in New York.

Many commenters, both for and against adoption of ACC II, stated that additional infrastructure was necessary. Some commenters stated that additional support for home charging and multi-unit dwelling infrastructure was needed. Infrastructure is beyond the scope of this rulemaking, but state agencies and authorities are aware of the issue and have several ongoing efforts to accelerate the number of available chargers statewide.

Numerous miscellaneous and beyond the scope comments were received. Miscellaneous comments included comments on definitions, State commitment to electric vehicles, the impact of electric vehicles, moving up the regulatory timeframe, battery recycling, tire wear, lithium mining, adoption of ACC II by other states, electricity rates, and biofuels.

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

6 NYCRR Part 200, General Provisions

Assessment of Public Comments

Comments Received from December 28, 2022 through 5:00 P.M., March 6, 2023

Comments in General Support of ACC II Adoption

Comment 1: I am writing in support of the Advanced Clean Car II rule. Commenter 3, 4, and 5.

Comment 2: I am writing to express my support for Emergency Rulemaking – Parts 200, General Provisions, and 218, Emission Standards for Motor Vehicle Engines. The emergency/proposed rulemaking will incorporate the State of California’s Advanced Clean Cars ii (ACC II) regulation. Commenter 7.

Comment 3: I am writing to support the New York Department of Environmental Conservation's move to adopt the Advanced Clean Cars II (ACCII) rule. Commenter 8-196, 198-204, 206-458, 460, 478, 493-494, 496-497, 926, 1104, 1183-1313, 1315-1317, 1319-1671, 1673-1700, 1770, 1941, 1957, 1973, 1976, 1982, 2001, 2042, 2048, 2063, 2067, 2073-2126, 2128-2248, 2250-2301, 2303-2338-2345, 2347-2351, 2353-2361, 2363-2375, 2377-2382, 2384-2511, 2513-2530, 2532-2538, 2540-2572, 2574, 2577-2592, 2594-2616, 2618-2620, 4425.

Comment 4: Let's continue the necessary work by establishing the Advanced Clean Cars II (ACCII) rule. Commenter 441.

Comment 5: Thank you for the opportunity to provide comment in support of the Advanced Clean Clean (sic) Cars II (ACCII) rule in New York. I support adopting these standards to strengthen the state's tailpipe emission standards and phase out all internal combustion engine vehicle sales by 2035. Commenter 459, 461-474, 476-477, 479-491, 495, 1701-1769, 1771-1940, 1942-1956, 1962, 1971, 1979-1981, 1986, 1995, 2020, 2039.

Comment 6: I fully support stronger standards for tailpipe emissions in the Advanced Clean Clean (sic) Cars II (ACCII) rule in New York. And I support phasing out internal combustion engine vehicle sales by 2035. Commenter 475.

Comment 7: I am writing to support the New York Department of Environmental Conservation's move to adopt the Advanced Clean Cars II (ACCII) rule. It is definitely a step in the right direction and would make a huge difference. Commenter 1246.

Comment 8: Please take this positive step forward! Commenter 1246.

Comment 9: We will be saving human lives, the environment and our planet so we need this bill passed. Please use your position to make sure that it becomes a reality. Commenter 1338.

Comment 10: I am a mother of two young boys and I am worried about their future and climate change seems to be accelerating and I believe that we must take action quickly. Supporting clean cars is part of that. Commenter 1578.

Comment 11: This is (sic) express my strong personal endorsement of New York's Advanced Clean Cars II rule. Commenter 1672.

Comment 12: WE NEED THE STRONGEST POSSIBLE MEASURES TO FIGHT CLIMATE CHANGE. Commenter 1719.

Comment 13: As a bike commuter for 50 years, who uses his internal-combustion auto as sparingly as possible here in Brooklyn, I support adopting these standards to strengthen the state's tailpipe emission standards and phase out all internal combustion engine vehicle sales by 2035. Commenter 1799.

Comment 14: On behalf of the American Lung Association, I am writing to call on the State of New York to complete the final adoption of the Advanced Clean Cars II (ACC II) standards to clean up passenger vehicle emissions. Commenter 1978.

Comment 15: We urge you to approve the ACC II standards as soon as possible so that all residents can breathe healthy air. Commenter 1978.

Comment 16: Rivian Automotive, LLC, is pleased to submit the attached comments in support of the emergency rulemaking to amend 6 NYCRR Part 200, General Provisions, and 6 NYCRR Part 218, Emissions Standards for Motor Vehicles and Motor Vehicle Engines, filed on December 28, 2022, by which New York adopted California’s Advanced Clean Cars II (“ACCII”) program. Rivian strongly supports New York’s bold actions to reduce transportation emissions and grow the electric vehicle market. Commenter 2028.

Comment 17: Rivian Automotive, LLC, (“Rivian”) appreciates the opportunity to comment on the emergency rulemaking to amend 6 NYCRR Part 200, General Provisions, and 6 NYCRR Part 218, Emissions Standards for Motor Vehicles and Motor Vehicle Engines, filed on December 28, 2022, by which New York adopted California’s Advanced Clean Cars II (“ACCII”) program. Rivian strongly supports New York’s adoption of these rules consistent with the state’s strategic goals to reduce greenhouse gas (GHG) emissions and improve air quality. New York continues to demonstrate impressive leadership in these areas with benefits for the climate, public health, and the state’s transition to a clean technology economy. Commenter 2028.

Comment 18: Rivian applauds New York for its leadership in adopting California’s ACCII rules by emergency regulation. In our collective efforts to address climate change, we should all act with urgency. Rivian’s products are proof that now is the time to look ahead and move forward with ambitious public policies like those adopted by the state. Rivian looks forward to continuing

our work with you and all stakeholders to accelerate transportation electrification in New York.
Commenter 2028.

Comment 19: It is imperative that New York adopt the California Advanced Clean Cars II rule.
Commenter 2362.

Comment 20: I strongly agree with this message, this action is vitally important, and hope you will support it! Commenter 2506.

Comment 21: Please proceed to adopt this important zero-emission rule! Commenter 2546.

Comment 22: I am so glad NYS's Department of Environmental Conservation is putting forth policies to help clean our air. Commenter 2556.

Comment 23: The regulations you are considering are key steps in the right direction. By supporting this, you will demonstrate your commitment to cleaner air and a healthier future. Now is the time for New York to continue its climate and clean air leadership. We encourage you to formally adopt these crucial transportation regulations. Commenter 2576.

Comment 24: We have delayed these measures for too long, risking the survival of our planet. Please push forward to get these regulations passed. Commenter 2603.

Comment 25: The Alliance for Clean Energy New York (ACE NY) and Advanced Energy United (United) recognize and appreciate the work of the New York State Department of Environmental Conservation (DEC) in protecting the environment and advancing the transition to a clean transportation sector in New York State.

We are writing today to voice our support to the DEC for adopting Advanced Clean Cars II regulations (ACC II), which will require all new passenger cars and trucks sold in New York State to be zero-emissions by 2035. The Final Climate Scoping Plan recommends the adoption of these regulations. Commenter 2593.

Comment 26: Thank you for your efforts to advance transportation electrification in New York and for the opportunity to comment on the Department of Environmental Conservation's rulemaking process for the Advanced Clean Cars II program. Commenter 2621-4424.

Comment 27: We urge you to finalize the Advanced Clean Cars program rule making process before the end of the year. Commenter 2621-4424.

Comment 28: As an owner of an EV, I fully support this bill. Commenter 2635.

Comment 29: There are so many crucial benefits to moving off gas-powered vehicles quickly. We know we have to do it, and delaying will only delay and reduce the benefits. Let's get moving on this. Commenter 2847.

Comment 30: The Advanced Clean Cars program is a common-sense tool to cut climate and air pollution in our state. I am imploring you to adopt it as soon as possible to start reaping the benefits of cleaner air and an economy that is less reliant on expensive fossil fuels. Commenter 2650.

Comment 31: We have reached the point where this must happen. Please finalize this program that's as important as the air we breathe. Commenter 2674.

Comment 32: NYS needs to be a leader in progressive climate change regulation. Please work to enact Strong regulations on vehicles that will improve our air quality, our citizens health, and help us work towards our goals of combating climate change. Commenter 2684.

Comment 33: We can't let another moment pass to finalize the Advanced Clean Car program. Commenter 2740.

Comment 34: Now that New York has the opportunity to support pollution and gas-free cars we must take full advantage of it by acting immediately! ASAP! Commenter 2798.

Comment 35: The Advanced Clean Cars program will mean cleaner air for all New York metropolitan area dwellers as well as less dependence on foreign oil and a less-ravaged planet.

Commenter 2855.

Comment 36: We need to have strong regulations on cars to help us make this a cleaner air environment. Commenter 2879.

Comment 37: The Environmental Amendment to the NYS Constitution looks to achieve clean air, clean water, and a healthful environment for all. Eliminating fossil fuels in transportation is a necessary go to step. Please support this measure to transition to non fossil fuel transportation now. Commenter 2881.

Comment 38: Advancing the distribution and sale of electric vehicles in our state is very important to many New Yorkers, including myself. Commenter 2916.

Comment 39: CO2 emissions from motor vehicles are among the biggest causes of our dependence on foreign oil, CO2 emissions, and a cause of global warming. Requiring all of us to move to cleaner energy is the answer. It is very important that the Advanced Clean Cars program be passed! Commenter 2952.

Comment 40: Even small towns like the one where I work have problems with tailpipe (sic) emissions. When I walk to work, there is the stink of exhaust almost every day, and it stays in the air for a long time because of the topography of the region. It's not just big city dwellers that need relief - it's all of us, and most especially, our planet - our home. We need to adopt the Advanced Clean Cars Program now. Please help us. Commenter 3004.

Comment 41: The Advanced Clean Cars program can make a significant contribution towards a cleaner and safer environment. Please support the rule-making process needed to help New York communities. Commenter 3011.

Comment 42: I would like to encourage political leaders to advance the agenda for clean air so needed in New York. It would make an example to the world and promote our well-being and that of our planet. The clean air agenda is crucial at this time and only good leaders would take this good step towards our future. Commenter 3041.

Comment 43: It is crucial that we take strong action to curb the effects of climate change. The Advanced Clean Cars program is a solid move to eliminate air pollution, cut carbon emissions from manufacture/transport, and ideally, incentivize our fellow New Yorkers to move to electric vehicles. With gas prices remaining outrageous due to oil companies insisting on breaking profit records year after year, electric cars would cease that painful drain on our pocketbooks. Commenter 3056.

Comment 44: Cutting transportation (sic) emissions is the right thing to do, whether there are high gas prices or not. We ALL are responsible for saving our planet. Commenter 3061.

Comment 45: Dirty NY air travels outside NY. Please adopt the Advanced Clean Cars program to reduce climate and air pollution! Commenter 3070.

Comment 46: I fantasize about the day I won't have to choke on vehicle exhaust. How wonderful to live long enough to experience truly clean air! Why not make that day today? You and your administration can move us forward in a real and substantial way. What a blessing that will be for us all! A fantasy come true. Commenter 3075.

Comment 47: Let's get the ball rolling and put EV's on the road throughout NYS. Commenter 3148.

Comment 48: As a parent, hiker, outdoor enthusiast, property owner, environmental activist and resident of New York for over 70 years, I see the negative effects of climate change on our environment and in our every day (sic) lives. I, and all the residents of New York need you to actively pursue and support the DEC's work for the Advanced Clean Cars II program. Commenter 3187.

Comment 49: We need to move quickly to cut greenhouse gas emissions. Supporting the electrification of vehicles is a bold step to reduce emissions and cut the effects of climate change. Commenter 3193.

Comment 50: Thank you for considering a more ecologically-friendly and reasonable method of powering transportation in our state. Commenter 3269.

Comment 51: Electric vehicles can slow climate change and should be transitioned to as soon as possible! Commenter 3280.

Comment 52: The Advanced Clean Cars program is a common-sense tool to cut climate and air pollution in New York state (sic)! Commenter 3297.

Comment 53: This is a great program to eliminate greenhouse gas emission from passenger vehicles. Commenter 3480.

Comment 54: please help support electric cars! Commenter 3498.

Comment 55: Transportation is one of the largest contributors to greenhouse gas. We need to pass the Advanced Clean Cars program in New York. Commenter 3515.

Comment 56: The Advanced Clean Cars program is a common-sense tool to cut climate and air pollution in our state. We're asking our state leaders to adopt it as soon as possible to start reaping the benefits of cleaner air and an economy that is less reliant on economytry (sic) harder so we all can breath (sic) better. Commenter 3618.

Comment 57: As an EV owner, I support this legislation! Commenter 3689.

Comment 58: As a nurse and mother, I support clean air initiatives as breathing clean air is essential for personal and public health. Commenter 3727.

Comment 59: I am an EV driver, and it has been such a positive experience for me and my whole family. With incentives in place, and prices continuing to come down, now is the time to take decisive action to ensure that NY makes the transition to clean transportation by 2035. Let's finalize the Advances Clean Cars program and get off gas now! Commenter 3737.

Comment 60: We need strong regulations on vehicles. Commenter 3754.

Comment 61: We must do everything possible to reduce emissions from vehicles. Commenter 3839.

Comment 62: We must reduce CO2 as fast as possible by every means available. This one is easy and impactful. Let's do it ASAP! Commenter 3880.

Comment 63: I want to breathe clean air. We need to get off polluting fossil fuels, not only for our better air, but to lower the temperature as our earth keeps warming and gigantic glaciers are melting! I fully support electric batteries replacing gas engines. Let's act urgently for a better future. Commenter 3883.

Comment 64: Vehicles are huge contributors to air and particulate pollution. Pleas (sic) take action to protect the world and your constituents. It is common sense! Commenter 3978.

Comment 65: We need legislation to reduce or eliminate toxic automobile emissions further. Commenter 4003.

Comment 66: As a mother of a toddler and an infant living by two different expressways, I cannot her emphasized (sic) how important legislation that keeps our air and broader environment clean is to me. Please pass strong environmental rules regarding clean cars. Commenter 3994.

Comment 67: Please adopt the Advanced Clean Cars program. This will be another step towards helping combat climate change. Commenter 4009.

Comment 68: Please, urgently take action to support everyday people gaining access to electric vehicles to replace internal combustion engines. We must rush to a less polluting environment for the health and well-being of our state, country and planet. Commenter 4034.

Comment 69: As a person that currently drives an electric vehicle, this advancement would only make sense to the larger amount of citizens in New York. Making electric vehicles more accessible in every way only makes sense in the larger scheme of things, helping us progress farther into the future and creating a better life for the generations that come after us. We want a world where people can feel like they are safe, and in a clean environment and not have to worry about the constant issues that the world is having currently. One of the first steps is to progress farther with electric vehicles to reduce pollution and reliance on gas as a way to power mobility. Commenter 4149.

Comment 70: Please enact the advanced clean cars program. My granddaughter and I both thank you! Commenter 4219.

Comment 71: I strongly advocate for cleaner environmental emissions, which is long overdue. New York State should be leading the way in transitioning to electronic vehicles. The Advanced Clean Cars II Program will bring us closer to achieving the goal of zero emissions. Commenter 4238.

Comment 72: I am sick of freaking out about the climate crisis. This is common sense reform and it needs to be done NOW. We are a leader in one of the most modernized nations in the world and it's time to stop living in the past. Be brave and act. We need solutions and hope. Commenter 4240.

Comment 73: I want to see more electric vehicles in New York and more infrastructure to support them as soon as possible. We need to move FAST to reach zero emission vehicle sales by 2035! Commenter 4250.

Comment 74: We are stewards of the planet. This means we are supposed to care for the soil, the water, the air, our fellow creatures and ourselves. No planet, no us, no life. We must do anything and everything that we can do in our great state of New York to help our climate so we can all live. Commenter 4270.

Comment 75: As someone still driving a 2006 Hybrid car, I'm seeing how manufacturing capacity issues at almost every auto manufacturer to produce EV versions of their cars are expected to accelerate in 2023. With design work going on right now, we will simplify getting really good vehicles if New York's vehicle standards are finalized within the next 2 months. How proud I would be if you did this, as a life-long New York State resident. Commenter 4357.

Comment 76: Before 2022 ends I urge you to adopt the latest Advanced Clean Cars program.
Commenter 4392.

Comment 77: Please adopt and pass the advance clean cars program and because I feel that we need clean air for everyone in new (sic) York City and nation wide (sic). Commenter 4412.

Comment 78: On behalf of the Union of Concerned Scientists and our thousands of activists and science network members in New York, we thank you for the opportunity to comment on the Department of Environmental Conservation's proposed adoption of the Advanced Clean Cars II Rule. New York has a significant opportunity to cement its technological, economic, and environmental leadership by adopting this innovative rule. The ACC II will turbocharge the transition away from polluting cars towards cleaner, more efficient, and economically beneficial electric vehicles.

The cars of the future are available and ready for work today. We urge the agency to adopt this rule fully as soon as possible to accelerate the Empire State transition to the clean economy of the future. Commenter 4428.

Comment 79: New York is at a point where it can take the lead on climate and air pollution by joining several other states in the northeast, such as Vermont and Massachusetts that have adopted or are on the cusp of adopting this rule. Every year without further regulations comes

with additional polluting cars going on the road to start their long lifetime. So it is imperative that D.E.C. formally adopts this rule without delay. Thank you for your work expanding clean cars. Commenter 4428.

Comment 80: Thank you for your efforts to advance transportation electrification in New York and for the opportunity to comment on the D.E.C.'s rulemaking process for the Advanced Clean Cars II program.

The Advanced Clean Cars program is a critical tool to cut climate and air pollution in our state. We're asking our state leaders to finalize all processes as soon as possible to start reaping the benefits of a cleaner air and an economy that is less reliant on expensive fossil fuels. By adopting the latest Advanced Clean Cars program, which will grow our light-duty electric car market to reach a hundred percent zero-emission vehicle sales by 2035, New York can cut pollution and free residents from the impact of volatile gasoline prices. Commenter 4429.

Comment 81: We cannot delay adopting the Advanced Clean Cars Program. We urge New York to move forward quickly with the Advanced Clean Cars II Program. We will be submitting technical comments with our partners and grassroots comments from eighteen hundred Sierra Club members and supporters. Commenter 4429.

Comment 82: I'm here today to voice Tri-State Transportation campaign's support for full adoption of ACC II in New York, which will require all new passenger cars and trucks sold in New York State to be zero-emissions by model year 2035. Commenter 4430.

Comment 83: The adoption of ACC II is crucial for New York State to achieve the climate goals, improve air quality in disadvantaged communities, and create economic benefits that will be felt statewide. We urge D.E.C. to take swift action and finalize adoption of ACC II as soon as possible. Commenter 4430.

Comment 84: New York has already established itself as a leader in its support for clean cars with the adoption of some of the strongest clean vehicle standards in the nation. Full adoption of ACC II is the common-sense next step for New York to take. Commenter 4430.

Comment 85: I'm speaking today to urge New York to move forward with the adoption of the Advanced Clean Cars II regulation expeditiously. Ensuring that we accelerate the transition to a zero-emission vehicle future is imperative to prevent the worst effects of climate change from occurring. The ACC II standards are a key part of this transition. Commenter 4431.

Comment 86: New York is prime for the transition towards zero-emission vehicles. And in order for New Yorkers to realize these benefits as soon as possible, then it's imperative that this emission vote to evolve these recommendations. Commenter 4431.

Comment 87: Thank you for the opportunity to speak today. Founded in 1991, NYC-EJA is a nonprofit citywide membership network linking grassroots organizations from low-income community of color and their struggle for environmental justice. I'm here to speak in support of the Advanced Clean Cars II program. Commenter 4432.

Comment 88: We need aggressive targets for clean cars and bold leadership from the state demonstrating our government's commitment to combating climate change to meet the Climate Leadership and Community Protection Act mandates. Commenter 4432.

Comment 89: Now moving forward with ACC II will impact New York's ability to achieve air quality standards and climate change targets. New Yorkers and Environmental Justice Communities are counting on the state to move forward with this program and phase up polluting vehicles wreaking havoc on their health. Commenter 4432.

Comment 90: We come here in strong support of the adoption of the Advanced Clean Car II regulations. Commenter 4433.

Comment 91: And we strongly urge the D.E.C. to adopt these rules quickly as possible in order to deliver -- deliver, not only in the greenhouse gas reduction that -- that we do need to meet our goals, but also the health and economic benefits that all New Yorkers deserve. Commenter 4433.

Comment 92: I want to thank you for the opportunity to support New York's adoption of Advanced Clean Cars II. Commenter 4434.

Comment 93: We have been a very active participant in the California Air Resources Board ACC II rulemaking. We support New York and the expansion of the adoption of the low emission vehicle and zero-emission vehicle regulations by the State of New York. We believe that the pace of your electric vehicle innovation cost reductions and deployment, coupled with the public health and welfare imperatives to address criteria air pollution and accelerating impacts of climate change support New York's adoption of ACC II. Commenter 4434.

Comment 94: I'm the National Senior Director for Clean Air Advocacy with the American Lung Association, and we're speaking in strong support for the final adoption of the Advanced Clean Cars II standards as a critical public health intervention that will reduce the harms of traffic pollution and save lives in communities across New York. Commenter 4435.

Comment 95: Again, the Lung Association is in strong support of moving forward with these rules as quickly as possible. Commenter 4435.

Comment 96: So I appreciate the opportunity to support D.E.C.'s proposal to make permanent California's Advanced Clean Cars II rule. It is absolutely critical that D.E.C. move forward with this rulemaking as expeditiously as possible. Commenter 4436.

Comment 97: We look forward to ACC making the [00:42:05] (sic) as quickly as possible and working together on building a zero-emission equity transportation system for all New Yorkers. Commenter 4436.

Response to Comments 1-97: The Department thanks you for your comments and support.

Comment 98: Now is the time to transition to cleaner transportation. As a concerned resident, I am writing to urge the Department of Environmental Conservation to adopt the Advanced Clean Cars II rule as well as the Heavy-Duty Low NOx Omnibus rule. Commenter 498-906, 908-919, 921-925, 927-1103, 1105-1182, 1958-1961, 1963-1970, 1972, 1974-1975, 1977, 1983-1985, 1987-1994, 1996-2000, 2002-2019, 2021-2027, 2029-2038, 2040-2041, 2043-2045, 2047-2056, 2058-2062, 2065-2067, 2068-2072, 2127, 2249, 2302, 2346, 2352, 2383, 2512, 2531, 2539, 2575.

Comment 99: Now is the time for New York to transition to use of cleaner, renewable energy transportation. As a concerned resident, I am strongly urging the Department of Environmental Conservation to please adopt the Advanced Clean Cars II rule as well as the Heavy-Duty Low NOx Omnibus rule. Please realize that adoption of these rules are vital to ensure rapid reductions in climate-changing emissions and air pollution. Commenter 1162.

Comment 100: Please adopt the Advanced Clean Cars II and Heavy Duty Low-NOx Omnibus rules and make the commitment to cleaner air, healthier communities, and 100 percent ZEVs.

Commenter 498-925, 927-1103, 1105-1182, 1958-1961, 1963-1970, 1972, 1974-1975, 1977, 1983-1985, 1987-1994, 1996-2000, 2002-2019, 2021-2027, 2029-2038, 2040-2041, 2043-2045, 2047-2056, 2058-2062, 2065-2067, 2068-2072, 2127, 2249, 2302, 2346, 2352, 2383, 2512, 2531, 2539, 2575.

Comment 101: The Department of Environmental Conservation must adopt the Advanced Clean Cars II rule as well as the Heavy-Duty Low NOx Omnibus rule. Commenter 920.

Comment 102: Now is the time for New York to continue to step up as a climate leader. I strongly urge you to please adopt the Advanced Clean Cars II and Heavy Duty Low-NOx Omnibus rules and make the commitment to cleaner air, healthier communities, and 100 percent ZEVs to ensure full protection for all New York state residents. Commenter 1162.

Comment 103: On behalf of the American Lung Association, please find comments attached in support of the adoption of ACCII rules and low NOx and Phase 2 Greenhouse Gas Standards in New York. Commenter 1978.

Comment 104: We, the undersigned 56 New York-based scientists, researchers, health professionals, economists, engineers, and planners respectfully submit this letter in strong

support of New York adopting the following regulations to address transportation pollution: the Advanced Clean Cars II and Low NOx Omnibus rules. Commenter 2576.

Comment 105: Also, ACE NY and United support the incorporation of California's Heavy-Duty Low Nitrogen Oxide (NOx) Omnibus and Phase 2 Greenhouse Gas standards, which requires medium and heavy-duty engine manufacturers to sell new, cleaner vehicles that meet more stringent NOx and particulate matter emissions standards, beginning with engine model year 2026. Commenter 2593.

Comment 106: For all these reasons, ACE NY and United support New York's adoption of a comprehensive regulatory framework to reduce pollution from transportation and fulfill the goals of the New York's climate law, the Climate Action and Community Protection Act (CLCPA). A major step to meeting our Climate Law goals is New York's adoption of California's regulations for zero-emission passenger cars, pickup trucks, and SUVs, as well as the Heavy-Duty Low NOx Omnibus rules. Commenter 2593.

Comment 107: On behalf of the Natural Resources Defense Council, Sierra Club, NYC-EJA, New Yorkers for Clean Power, Environmental Advocates of New York, Earthjustice, and the Union of Concerned Scientists, attached, please find our comments in support of New York's adoption of the Advanced Clean Cars II and Heavy-Duty Omnibus regulations. Commenter 2617.

Comment 108: On December 29, 2022, New York adopted via emergency two regulations that will help to reduce health and climate harming pollution from the transportation sector: the Advanced Clean Cars II (ACC II) and Heavy-Duty Omnibus (HDO) rules. Now, it is vital for New York to finalize both of these rules, which provide a significant amount of benefits to the state and its residents. These rules are feasible, provide a myriad of economic, health, and air quality benefits to the state, and provide auto manufacturers with ample lead time and flexibilities to successfully implement these rules. Commenter 2617.

Comment 109: ACC II and HDO are two of the most powerful regulations available now that the DEC can implement to fulfill its mission of protecting the environment and ensuring the health, safety, and welfare of New Yorkers. Through significant reductions in GHG and air pollutants such as NO_x and PM_{2.5}, these regulations will help tackle climate change, improve air quality, and mitigate the many health problems associated with air pollution. Additionally, they are also technically feasible, strongly supported by the FSP, and economically beneficial to New Yorkers. Given all these reasons, we urge the DEC to ensure the full adoption and implementation of these two vital regulations. Commenter 2617.

Response to Comments 98-109: The Department thanks you for your support. While the Heavy-Duty Low NO_x Omnibus rule is beyond the scope of this rulemaking, the Department agrees that the Department's revisions to Part 218 regulations to incorporate the State of California's Heavy-Duty Omnibus Low NO_x (oxides of nitrogen) regulation ("Heavy-Duty Omnibus") and Phase 2

Greenhouse Gas Standards (“Phase 2 GHG”) for Medium- and Heavy-Duty vehicles will also further the goals of reducing motor vehicle air pollution in New York.

Comments in General Opposition to ACC II Adoption

Comment 110: I am writing to OPPOSE the New York Department of Environmental Conservation's move to adopt the Advanced Clean Cars II (ACCII) rule. Commenter 205.

Comment 111: While this appears to be a great idea, it will negatively impact thousands of New Yorkers. Commenter 2057.

Comment 112: I am writing to express my thoughts on the proposed rulemaking Part 218 Advanced Clean Cars II (ACC II). Reducing the effects of climate change is a critical task, and I applaud the overall intent of these changes. However, I have some concerns about the specifics. Commenter 2064.

Comment 113: Again, I agree with desired goal of reducing pollution and thereby hopefully slowing climate change, but I have concerns about the proposed means of reaching that objective. In some respects, they go too far, in other respects they simply are not ambitious enough, limited by current ways of thinking. Commenter 2064.

Comment 114: Cummins Inc. appreciates the opportunity to provide comments regarding the New York State Department of Environmental Conservation's (NYS DEC's) emergency regulation and proposal to adopt California's Advanced Clean Cars II (ACC II) regulation. Cummins is a proponent of tough, clear, and enforceable regulations around the world in order to improve the environment while delivering what our customers need and shares New York's goal to improve real-world NOx emissions from the medium-duty vehicles (MDV) which are part of the ACC II rulemaking.

Cummins has significant concerns with adopting in-use testing requirements and standards which were developed for the Heavy-Duty (HD) Omnibus Low NOx rule for HD engine certification and compliance and applying them directly to chassis-certified MDV in LEV IV. Commenter 2376.

Comment 115: I am submitting these comments to the Department of Environmental Conservation (DEC) because the proposed rulemaking ignores feasibility, affordability, and life-cycle environmental impacts. Commenter 2573.

Comment 116: These comments are not detailed because I do not believe they will be considered. The opinions expressed in these comments do not reflect the position of any of my previous employers or any other company I have been associated with, these comments are mine alone. Commenter 2573.

Comment 117: The American Fuel & Petrochemical Manufacturers (AFPM) appreciates the opportunity to comment on the New York State Department of Environmental Conservation (NYSDEC) proposed amendments to Title 6 of the New York Codes, Rules, and Regulations (NYCRR). AFPM is a national trade association representing nearly all U.S. refining and petrochemical manufacturing capacity. AFPM members support more than three million quality jobs, contribute to our economic and national security, and enable the production of thousands of vital products used by families and businesses throughout the U.S. AFPM members are also leaders in producing lower carbon fuels, such as renewable diesel and sustainable aviation fuel. Commenter 4426-4427.

Comment 118: In light of the above, AFPM recommends that NYSDEC revoke this emergency rulemaking and start afresh through the standard rulemaking process, detailing its legal authority and providing a full accounting of the costs and benefits of the proposal. Considering AFPM's foregoing comments, NYSDEC also should reconsider whether to re-propose adopting ACC II at all, given that its adoption would be preempted by federal law.

The remainder of these comments discuss AFPM's serious concerns with NYSDEC's proposal to adopt California's ACC II. In section B, we focus on NYSDEC's failure to demonstrate that the legal authorities it cites support adoption of ACC II. In section C, we highlight the deficiencies in NYSDEC's environmental and economic analyses. In Sections D and E, we discuss federal preemption of ACC II and pending litigation. In Section F, we observe that

adoption of ACC II constitutes a regulatory taking requiring just compensation. Finally, Section G describes some of the unintended consequences of California's initial foray into ZEV mandates under ACC I. Commenter 4426-4427.

Response to Comments 110-118: The Department thanks you for participating in this important rulemaking process and addresses these general opposition comments in more detail, as applicable, in the specific comment categories set forth below.

Emergency Adoption

Comment 119: Because of lead-time requirements under the federal Clean Air Act, it was critical that New York adopt ACCII in calendar year 2022 to ensure implementation beginning in Model Year ("MY") 2026. This is because the state's preexisting ZEV requirements will likely become unenforceable when California formally moves into the ACCII program effective with MY2026. At that time, ACCII will supersede California's previous ZEV requirements. Under Section 177 of the Clean Air Act, states must follow identical rules to California or revert to federal standards. Without the emergency action taken by the Department of Environmental Conservation, New York could have faced a year or more without clean cars regulations, jeopardizing the state's progress on emissions reductions and ZEV market development. We applaud New York for its timely action to adopt the ACCII regulations, setting up the state for a seamless transition to the next phase of clean cars standards in MY2026. Commenter 2028.

Comment 120: Under the requirements of the Clean Air Act, states must give auto manufacturers at least two years of lead time notice of the adoption of the ACC II standards. New York is proposing to adopt ACC II starting in Model Year 2026. With the passage of ACC II through emergency rulemaking on December 29, 2022, New York has provided the required lead time to automakers to start the regulations in Model year 2026. Commenter 2617.

Comment 121: NYSDEC has not sufficiently analyzed the costs and benefits and environmental impacts necessary to support this emergency rulemaking. NYSDEC adopted ACC II “on an emergency basis,” effective immediately as of December 13, 2022. As authority for doing so, NYSDEC cited section 202(6) of the State Administrative Procedure Act (SAPA). NYSDEC’s invocation of this authority is misplaced. The proposal does not satisfy the requirements of the emergency-rulemaking provision that it cites. In any event, the action in question is plainly inappropriate for emergency rulemaking and adoption of regulatory procedures effective immediately with no prior opportunity for public comment, because it addresses an increase of ZEV mandates beginning in two years.

New York law authorizes NYSDEC to adopt a rule on an “emergency basis” only if the rule “is necessary for the preservation of the public health, safety or general welfare” and only when a formal rulemaking proceeding would be “contrary to the public interest.” NYSDEC cannot satisfy this standard, as immediate adoption of ACC II will not meaningfully alter global carbon emissions, much less to a degree needed to demonstrate that ACC II is “necessary” to preserve public health, safety, or general welfare. Indeed, New York is concurrently considering multiple

other carbon abatement programs, including a low carbon fuel standard. Likewise, the federal EPA sets light-duty vehicle standards to regulate carbon emissions from new motor vehicles. That both federal and state policymakers are actively considering multiple options for carbon reductions is prima facie evidence that an emergency rulemaking is neither necessary nor appropriate. Finally, even if such an emergency existed, for the time being NYSDEC's adoption of ACC II will do nothing to address it because the rule could not take effect until EPA issues a Clean Air Act waiver to California.

Even if NYSDEC could satisfy the substantive requirements for emergency rulemaking, it has not complied with the emergency adoption rulemaking procedures to fully describe the specific reasons for circumventing the protections of a full and complete rulemaking. "A notice of emergency adoption" must include a statement fully describing the specific reasons for [the required] findings and the facts and circumstances on which such findings are based. Such statement shall include, at a minimum, a description of the nature and, if applicable, location of the public health, safety or general welfare need requiring adoption of the rule on an emergency basis; a description of the cause, consequences, and expected duration of such need; an explanation of why compliance with the requirements of subdivision one of this section would be contrary to the public interest; and an explanation of why the current circumstance necessitates that the public and interested parties be given less than the minimum period for notice and comment

The notice's justification for emergency rulemaking reads in full:

Failure to maintain the most stringent vehicle emissions standards possible by immediately adopting this rule will be detrimental to the public health and general welfare of New Yorkers. Compliance with the requirements of SAPA § 202(1) would be contrary to the public interest in this instance as the immediate adoption of this rule is necessary to preserve the public health and general welfare of the citizens of the State, due to the loss in GHG and co-pollutant emission reductions caused by a delay. In order to maintain the cleanest motor vehicle standards available to New York, we must adopt these standards now. This amendment is adopted as an emergency measure because time is of the essence.

This statement is wholly conclusory. The only specific finding is its assertion that immediate adoption of ACC II will avoid a “loss in GHG and co-pollutant emission reductions.” But this single dependent clause identifies no basis to invoke emergency-rulemaking procedures that would not apply equally in the case of any other environmental regulation—every delay in environmental regulation could conceivably result in fewer reductions of some pollutant. Courts have invalidated attempts to use emergency-rulemaking authority where the acting agency gave only such general, conclusory statements of need, instead of complying with SAPA’s notice requirements.

In addition, the proposal’s “Needs and Benefits” section states that there are ozone non-attainment areas in the state and that EPA will reclassify some areas as “severe” nonattainment. However, the CAA was designed to purposefully allow states flexibility to adopt control

strategies and extend compliance deadlines while progressively adopting more stringent emission controls, many of which have already been undertaken at the federal and state level and simply need time for implementation to bring the area into attainment. Also, the overwhelming majority of NY is in compliance with the 2015 8-hr ozone standard and only the metro NYC area is designated as “moderate” nonattainment as of February 28, 2023. While it is true the metro NYC area has been designated as “severe” nonattainment with the 2008 ozone standard, this designation was made at the request of New York to EPA, and as New York stated in the request, “New York State continues to exceed its Reasonable Further Progress emission reduction requirements.” Moreover, New York has not exceeded the new July 20, 2027 compliance deadline to attain the standard. Most importantly, New York does not clearly explain to the public that its own ‘business as usual’ analysis shows that light-duty vehicle NO_x emissions in the state under current regulations will drop by 73% (between 2025 and 2040), PM_{2.5} emissions will drop by 31% and CO₂ emissions will drop by 35%. Clearly, there is no emergency to further accelerate these emission reductions beyond levels already required under federal and state regulation, given that these emissions are declining rapidly.

In any event, this regulatory action is plainly inappropriate for emergency rulemaking. If NYSDEC adopts ACC II, this will result in a 12 year-long “ramp-up” of car standards and so-called “Zero Emission Vehicle” (ZEV) mandates, beginning in model year 2026, with no discernible immediate impact on New Yorkers. Therefore, there is no reason why NYSDEC could not have proposed to adopt ACC II, solicited comments, considered the comments, and decided whether to finalize its proposed action. Indeed, the deficiencies in NYSDEC’s regulatory impact analysis, discussed in Section C below, show that NYSDEC left much crucial work

undone and has not provided the public with a sufficient basis to provide informed comment, or for itself to make a reasoned decision. Commenter 4426-4427.

Response to Comments 119-121: The Department's authority for its emergency adoption and findings of necessity are set forth fully in its rulemaking documents. The State Administrative Procedures Act (SAPA) Section 202(6) provides that a State agency may dispense with all or part of the normal rulemaking requirements and adopt a rule on an emergency basis if "[the] agency finds that the immediate adoption of a rule is necessary for the preservation of the public health, safety, or general welfare and that compliance with the [normal rulemaking] requirements ... would be contrary to the public interest." The Department finds that failure to adopt and maintain the most stringent vehicle emissions standards possible by immediately adopting ACC II will be detrimental to the public health and general welfare in the State and that compliance with the normal rulemaking requirements would be contrary to public interest. In particular, failure to immediately adopt California's stricter motor vehicle emissions reduction program in New York will: 1) further exacerbate significant adverse impacts to human health, the environment and the general welfare; 2) result in New York's continued failure to attain the federal health-based national ambient air quality standards; 3) hinder New York's ability to meet its climate action goals; and 4) result in New York's failure to regulate model year 2026 and subsequent light- and medium-duty vehicles and engines under this amendment as prescribed by the Clean Air Act's two-year lead time requirement.

The immediate adoption of this amendment is critical for meeting the requirements of New York’s Climate Leadership and Community Protection Act, Chapter 106 of the Laws of 2019 (“CLCPA”), which established ambitious greenhouse gas reduction requirements and other climate policy goals. It is critical that strict emission standards for light- and medium-duty vehicles were adopted no later than the end of December 2022 for the Department to ensure the requirements established by the CLCPA and the federal Clean Air Act are met. Section 177 of the Clean Air Act requires that States seeking to adopt California’s more protective new motor vehicle standards to provide motor vehicle manufacturers with two full years lead time before the start of the vehicle model year. A model year starts as early as January 2 of the preceding calendar year. For New York to achieve the emission reduction benefits under this amendment and avoid adverse impacts to human health and the environment caused by a delay or failure to effectuate these measures, New York had to adopt this amendment prior to January 2, 2023, which is two years prior to the January 2, 2025 start date for the 2026 model year vehicles targeted under this amendment. Emergency adoption ensured the two-year lead time provision and provided regulatory certainty to the regulated community.

The rulemaking also preserved the ability for stakeholders to provide written and oral comments on the content of the regulations during a 60-day public comment period and public hearing following emergency adoption of the regulation.

Additionally, the current ACC I requirements will expire following the 2025 model year. Failure to adopt the ACC II regulation before the end of 2022 would result in missing at least the 2026

model year and force New York to revert to less stringent and less protective federal emission standards for that model year.

Comment 122: First I am deeply concerned about making regulatory changes of this magnitude under emergency procedures. While the matter at hand is quite important, the time horizon being considered can hardly allow for any rule making under emergency processes; to do so is an abuse of the process. Commenter 2064.

Comment 123: There is no reason that this must be an emergency rule-making. Commenter 2573.

Response to Comments 122-123: The Department disagrees with these comments. The Department has fully complied with all SAPA and other legal requirements for the ACC II rulemaking. The rulemaking also preserved the ability for stakeholders to provide written and oral comments on the content of the regulations during a 60-day public comment period and public hearing following emergency adoption of the regulation. See also Response to Comment 119-121.

Comment 124: The primary rationale for this emergency rulemaking is to implement the control strategy recommendations included in the Climate Leadership & Community Protection Act (Climate Act) Scoping Plan. The Climate Action Council deferred a feasibility analysis of

reliability, affordability, and environmental impacts to the rule-making phase. The result of this irresponsible avoidance of responsibility is a regulation that could very well not be in the best interests of New York. Commenter 2573.

Response to Comment 124: New York State has adopted California on-road motor vehicle emission standards since 1990 to achieve and maintain New York's air quality goals. A full analysis of the environmental, health, and economic benefits of the ACC II regulation was conducted in the RIS and other regulatory documents filed with the New York State Department of State. As set forth in the RIS, 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, adopted by California on August 25, 2022. The proposed amendments also support the requirements of New York's Climate Leadership and Community Protection Act, Chapter 106 of the Laws of 2019 (CLCPA or Climate Act), to further reduce GHG emissions in the State. Additionally, this rulemaking will comply with the legislative requirements of Chapter 423 of the Laws of 2021, which requires 100% of the new light-duty vehicle sales in New York to be zero emission vehicles by 2035, where feasible, and will maintain identity with California's standards as required under Section 177 of the Clean Air Act. (See also Response to Comment 119-121). The remainder of the comments relating to the CLCPA and activities of the Climate Action Council are beyond the scope of this rulemaking.

Authority to Adopt

Comment 125: Under the federal Clean Air Act (CAA), California is eligible to seek and receive a waiver of preemption under the terms of section 209(b)(1) “if the state determines that the state standards will be, in the aggregate, at least as protective of public health and welfare as applicable Federal standards.”

Under the Clean Air Act Amendments of 1977, Congress also permitted States under Section 177 of the Act to adopt California new motor vehicle emission standards, so long as:

(1) such standards are identical to the California standards for which a waiver has been granted for such model year, and

(2) California and such States adopt such standards at least two years before commencement of such model year (as determined by regulations of the Administrator).

California officially adopted the ACC II regulations on November 30, 2022, allowing for other states to also move to adopt them pursuant to the federal Clean Air Act and state law. As noted above, New York has such authority under existing State law, and should use that authority to implement the ACC II rule. Commenter 2617.

Comment 126: Adoption of ACC II builds upon New York’s past leadership to reduce greenhouse gases from the transportation sector. The state has participated in the Advanced Clean Cars low-emission vehicle standards for criteria pollutants and the zero-emission vehicle program since 1993 (the first state outside of California to do so) and the greenhouse gas low-

emission standards since 2009. New York also adopted California's Advanced Clean Trucks rule in December 2021. The current Clean Car standards will end in vehicle Model Year 2025 – ACC II continues to build upon these past standards and helps accelerate the transition to a zero-emission vehicle future through 2035– which New York committed to in state law in 2021. Commenter 2617.

Response to Comments 125-126: The Department agrees with the assessment of the waiver process and lead time requirements which are set forth in the RIS. New York has a long history, dating back to 1990, of adopting California's more stringent, and protective, emission standards. These emission reductions are critical for New York. Through this rulemaking, the Department is continuing to utilize its authority under the Clean Air Act and New York State's Environmental Conservation Law to protect the health of New York residents and the environment and to achieve the State's air quality goals. Also, New York may adopt California's ACC II standards prior to the time California is granted a waiver by the U. S. Environmental Protection Agency under Section 209 of the Clean Air Act and may thereafter enforce them once a waiver is granted.

Comment 127: During the Trump Administration, the National Program on GHG tailpipe emissions and fuel economy standards for passenger vehicles faced an unprecedented attack and rollback which Trump agency appointees called “the largest deregulatory initiative” of this administration.

The U.S. EPA, under the Biden Administration, reversed much of the damage to federal and state vehicle emission programs for model years (MY) 2023 through 2026, while National Highway Traffic Safety Administration (NHTSA) updated fuel economy standards for model year (MY) 2024 to 2026 in order to reduce our nation's reliance on oil and harmonize with EPA's program. We wish to see progress and collaboration continue, but we are also cognizant that foundational progress must be made at the state level given the recent history of changing political winds at the federal level.

Therefore, more than ever, "Section 177 States" and California must provide long-term certainty through its programs to protect public health and the environment. States have the obligation and authority to ensure continued progress occurs on reducing GHG and other air pollutants, regardless of federal action (or in-action). Providing long-term certainty to the industry, as this proposed rule does, will be important not only today, but in future environments where federal inaction on climate could occur again. Several auto manufacturers— including Ford, Volkswagen, BMW, Honda, and Volvo— support California's right to set its own more stringent-than-federal auto pollution standards, and the rights of states to also adopt these rules. Commenter 2617.

Response to Comment 127: The actions of the Trump Administration and the rollback of California's emission standards and revocation of granted waivers are beyond the scope of this rulemaking. However, the Department agrees that adoption of ACC II standards by California, New York, and other Section 177 states provides a clear market signal and regulatory certainty to vehicle manufacturers.

Public Notice

Comment 128: There is another important aspect of this rule-making that should be considered by DEC. There has been very little public notification of the rule-making so most of the public has no clue this is being considered. I recommend that the comment period be extended and an extensive outreach program to alert more New Yorkers of the rulemaking. Commenter 2573.

Comment 129: This is another instance of a regulation that affects most New Yorkers but only a few are aware of its existence. I expect that the climate activists will mobilize their acolytes to submit comments supporting the rule-making. DEC will count the pro and con comments and consider implementation as a mandate from the public because more comments in favor than against will be submitted. If everyone was aware of this proposal, I am sure there number of people opposed would far outweigh the number in favor. Commenter 2573.

Response to Comments 128-129: The Department provided the public with an opportunity to comment during the public comment period and during the public hearing conducted on the proposed regulation in accordance with New York's State Administrative Procedures Act (SAPA) requirements during this rulemaking. Notice of proposed rulemaking was provided on December 28, 2022; a 60-day public comment period was held from December 28, 2022 through 5 p.m. on March 6, 2023; and a public hearing was conducted on March 1, 2023. In addition, a stakeholder outreach meeting was conducted on September 14, 2022 and included, among others, manufacturers and industry trade groups, non-governmental organizations (NGOs),

environmental justice (EJ) groups, vehicle dealerships, repair shops, gasoline and diesel fuel providers, electric vehicle charging infrastructure manufacturers and providers, state agencies and authorities, and consumers.

The Department disagrees with the assertion that regulatory decision making is swayed by the volume of comments for or against a proposed regulation. All comments are reviewed and considered on their merits regardless of the individual or group submitting them. Likewise, all stakeholders were provided the same opportunity to comment on the proposed regulation.

Additionally, the Department notes that ACC II was under consideration by the California Air Resources Board (CARB) prior to its public release in April 2022. Thereafter, ACC II underwent extensive public review before it was adopted by CARB on August 25, 2022, and finalized on November 30, 2022. New York's adoption of CARB's ACC II rule pursuant to the Clean Air Act also provides for extensive public review and comment as required under New York's State Administrative Procedure Act and fulfills the Department's mission of ensuring the protection of public health and the environment.

ZEV Sales Mandate

Comment 130: The problems caused by gas-powered cars are big, but adopting ACCII will help New York transition to zero-emission vehicles much sooner by requiring all new vehicles sold by manufacturers to be zero-emission by 2035. Commenter 8-204, 206-355, 357-422, 424-458,

460, 478, 493-494, 496-497, 926, 1104, 1183-1244, 1246-1313, 1315-1317, 1319-1337, 1339-1577, 1579-1671, 1673-1700, 1770, 1941, 1957, 1973, 1976, 1982, 2001, 2042, 2046, 2063, 2067, 2073-2126, 2128-2248, 2250-2301, 2303-2336, 2338-2345, 2347-2351, 2353-2361, 2363-2375, 2377-2382, 2384-2511, 2513-2530, 2532-2538, 2540-2572, 2574, 2577-2592, 2594-2616, 2618-2620, 4425.

Comment 131: The pollutants generated by combustion engine cars and trucks are a good place to begin. Please, set a target year by which all new vehicles sold/owned in NYS must have zero polluting emissions as their output. Commenter 600.

Comment 132: It is not enough to require car manufacturers to produce only zero-emission cars by 2035 or 2040. This process must start NOW. Most car companies are already producing some electric vehicles. Commenter 1276.

Comment 133: As you know, ACC II will protect public health, reduce greenhouse gas emissions, and advance NY's emissions reduction goals by requiring all new vehicles sold to be zero-emissions by 2035. Commenter 1672.

Comment 134: Here in New Paltz our Climate Smart task force conducted a community greenhouse gas emissions inventory. We found that, as with NYS and the country as a whole, the

source of the majority of our emissions is transportation. Therefore we heartily welcome DEC's actions to move to non-fossil fueled vehicles, and soon. Commenter 1686.

Comment 135: We urge you to move New York ahead by implementing the ACC II standards to clean up the passenger vehicle fleet on the way toward 100 percent ZEV sales by 2035.

Commenter 1978.

Comment 136: Rivian's mission to Keep the World Adventurous Forever is made manifest in its commitment to the environment and addressing climate change. We strongly support programs of ambitious emissions regulation and zero-emission vehicle ("ZEV") sales requirements as core to our values and vision for the world. Implementation of the amendments to 6 NYCRR Parts 200 and 218 will drive critical reductions in GHG emissions and air pollution in New York in part by fully transitioning the state's new vehicle market to 100 percent ZEV sales by 2035. The standards also set new limits on emissions from conventional light- and medium-duty vehicles. These reductions would represent a down payment on ever stronger public health and air quality improvements across New York, and are necessary to meet EV sales goals already outlined in state law and to achieve the GHG reduction requirements established by the Climate Leadership and Community Protection Act. With transportation contributing more to New York's GHG emissions than all but one other economic sector, the state cannot afford to leave any emissions reductions in this sector on the table. Commenter 2028.

Comment 137: Adopting ACCII will help New York transition to zero-emission vehicles by requiring all new vehicles to be zero-emission by 2035. Commenter 2350.

Comment 138: The proposed amendment mandates that starting with model year 2026, car makers, 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. Commenter 2573.

Comment 139: By adopting the latest Advanced Clean Cars program--which will grow our electric car market to reach 100% zero emission vehicle sales by 2035--New York can cut pollution, free residents from the impact of volatile gasoline prices, and enforce the state's prior legislative zero emission vehicle commitment. Commenter 2621-4424.

Comment 140: Without strong regulations vehicle manufacturers will not move fast enough to make changes. We have the technology now to make impacts on climate change we just need to structure to implement the changes. This is important to everyone's future. Commenter 4168.

Comment 141: The Advanced Clean Cars program is also the best and only way to make enforceable the state's prior legislative zero-emission vehicle commitment. Commenter 4429.

Comment 142: The ACC II rule is the only available means of implementing legislation signed into law by Governor Hochul, which sets a 2035 goal for all new passenger vehicles sold in New York to be zero emissions.

Moreover, it is the cornerstone recommendation and the state's recently finalized climate scoping plan, which charts a path to a zero-emissions economy in line with the requirements of the Climate Leadership and Community Protection Act. In the transportation sector, vehicle engine standards and zero-emission vehicle mandates do the lion's share of the work in terms of reducing emissions to meet the state's binding 2030 and 2050 emission limits. There is simply no feasible pathway to achieving the emission cuts required by the C.L.C.P.A. without ACC II. The state's own modeling bears this out. The results show that New York State must achieve a hundred percent zero-emission sales for new passenger vehicles by 2035, and at least ninety percent by the end of this decade to stay on track. In terms of vehicles on the road, at least twenty-one percent must be zero-emissions by 2030. Compare these figures to a business-as-usual scenario, which would result in just over thirty percent of sales and ten percent of stocks being zero-emissions by 2030. Commenter 4436.

Response to Comments 130-142: Under this regulation, all new light-duty vehicle sales will be required to be 100% ZEVs by model year 2035. The amendments are consistent with the requirements of New York's Climate Leadership and Community Protection Act (CLCPA), Chapter 106 of the Laws of 2019, to further reduce greenhouse gas (GHG) emissions in the State, as well as legislation signed by Governor Hochul in 2021 (Chapter 423 of the 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.

Comment 143: The ACC II regulation starts at 35% ZEV sales in model year 2026 with an interim target of 68% sales by 2030 and a 100% target in 2035. It also provides flexibilities—such as the ability to utilize early compliance credits, environmental justice credits, and historical credits—that will help reduce the regulatory burden on manufacturers in states with lower sales than California. The current Advanced Clean Cars Program ZEV mandate levels out ZEV sales at approximately 7-8% starting in model year 2025 and maintains that requirement for subsequent years. Due to the current level of ZEV sales across the United States, and globally, it is clear that this 7-8% sales target is far below the current state of the market and does not reflect real-world sales. As of September 2022, Bloomberg’s New Energy Finance projects that market forces alone will make electric vehicle sales reach 23% of U.S. passenger vehicle sales in 2025, and 52% in 2030. ACC II will facilitate and accelerate that already occurring process and strengthen the current standards. And with strong automaker commitments and federal laws—such as the Infrastructure Investments and Jobs Act and the Inflation Reduction Act—electric vehicles will become more accessible and affordable. Commenter 2617.

Response to Comment 143: The Department agrees that the ACC I ZEV targets are not representative of the current market in California and many Section 177 states. Greater annual percentages are also needed to achieve the legislative goals of Chapter 423 of the Laws of 2021 and other needs identified in the RIS.

Comment 144: ACC II is a common-sense standard, but we also consider that. According to Atlas Public Policy, automakers and manufacturers have pledged more than two hundred and ten billion dollars towards E.V. technology research, manufacturing, and distribution operations in the United States. Commenter 4431.

Response to Comment 144: The Department acknowledges Commenter's statement that vehicle manufacturers and battery producers have pledged \$210 billion for investment in the United States to transition to EVs by 2030.¹

Medium-Duty Vehicle In-Use Testing

Comment 145: Cummins therefore recommends that New York and other states instead remain aligned with the U.S. Environmental Protection Agency's (EPA's) standards for MDV. EPA's new rule for Multi-Pollutant Emissions Standards for Model Years 2027 and Later Light-Duty and Medium-Duty Vehicles will be proposed later this month as part of their Clean Trucks Plan. In it, EPA will set new nationwide NOx and greenhouse gas standards for MDV that will benefit all of our nation's communities, including New York's. Commenter 2376.

¹ https://www.atlasevhub.com/data_story/210-billion-of-announced-investments-in-electric-vehicle-manufacturing-headed-for-the-u-s/#:~:text=Vehicle%20manufacturers%20and%20battery%20makers,than%20in%20any%20other%20country

Response to Comment 145: During the development of New York's ACC II rule, the Department became aware of the U.S. EPA's efforts to propose and adopt its new Clean Trucks Plan that establishes new emission standards for medium-duty vehicles (MDVs) commencing with model year 2027. New York strongly supports a federal program with standards comparable to California standards, which would significantly lower oxide of nitrogen (NOx) emissions from internal combustion engines nationwide. The Department's initial review of the proposed federal standards indicates that the federal rule may not be as stringent as California's ACC II low emission vehicle (LEV IV) standards. Relying solely on prospective action from the federal government, which would take effect after California's LEV IV standards are implemented, puts New York at risk of failing to meet its climate change and criteria pollutant emission reduction requirements and goals under the CLCPA and Chapter 423 of the Laws of 2021.

Comment 146: CARB's ACC II proposal includes amendments that apply to chassis-certified MDV as part of the new Low-Emission Vehicle (LEV) IV requirements. Those Class 2b and 3 vehicles (i.e., vehicles with 8,500-14,000 lbs Gross Vehicle Weight Rating (GVWR)), are manufactured as complete vans and pickup trucks. MDV pickup trucks can have significant towing capability and are often used in applications going beyond personal use such as construction and agriculture, and as such, do vital work in California. Towing capacity is defined by the vehicle's Gross Combined Weight Rating (GCWR), or the maximum allowable combined weight of the fully loaded vehicle and the maximum trailer weight that can be towed.

Similar to CARB's LEV III certification standards for light- and medium-duty vehicles, CARB's proposed more stringent LEV IV certification standards are based on chassis-dynamometer testing. However, for MDV with GCWR >14,000 lbs, CARB proposes to also add new Three-Bin Moving Average Window (3B-MAW) in-use testing requirements with emission limits based on the HD Omnibus engine-dynamometer certification standards for model year (MY) 2027 and later HD engines which include a 0.020 grams per brake horsepower-hour (g/hp-hr) NO_x standard. Cummins did not support the 0.020 g/hp-hr NO_x standard as feasible during the HD Omnibus rulemaking, did not support it when proposed recently by the U.S. Environmental Protection Agency (EPA) as part of their Option 1 standards for HD engines, and does not support its application here in the ACC II rule. The proposed mismatch of applying engine-certification based in-use limits to chassis-certified MDV is not workable for several reasons.

First, translating the proposed LEV IV distance-based, grams per mile (g/mi) NMOG + NO_x certification bin standards to brake specific, g/hp-hr standards using reasonable assumptions for FTP 75 certification cycle work and vehicle test weight, and then comparing to the proposed engine-based in-use NO_x limits in units of g/hp-hr, shows a significant misalignment in stringency. The HD engine-based in-use NO_x limit of 0.020 g/hp-hr, even with an in-use conformity factor (CF) or multiplier applied, is much more stringent than even the lowest proposed bins available for MDV certification.

Additionally, even though CARB's HD engine-based in-use NO_x limit adjusts proportionally for HD engines certifying at a Family Emission Limit different from the standard (i.e., credit-using

or credit-generating engines), CARB has proposed only a single set of 3B-MAW in-use NO_x standards for MDV regardless of the NMOG + NO_x bin level to which they are certified, effectively eliminating any fleet averaging flexibility. CARB should address these mismatches through MDV in-use limits which are better aligned with the stringency of the proposed MDV certification standards and which adjust according to the certification bin level.

CARB has based justification of their proposed in-use NO_x limits on data collected using Portable Emissions Measurement Systems (PEMS) on medium-duty vehicles driving several routes in Southern California and on their technology demonstration for the HD Omnibus rulemaking. However, none of the PEMS NO_x results collected for medium-duty vehicles towing at 70%-80% GCWR (similar to the minimum loading required for inclusion in the new in-use testing procedure) on the Oxnard towing route meet the proposed MY 2027 limits for the low-load and medium/high load bins of the 3B-MAW test, not even the re-calibrated Cummins engine which showed emissions improvements on other drive cycles. (See Figures 31 and 32 of Appendix H, “ACC II LEV Technology Appendix”, of CARB’s rulemaking documents.) CARB suggests that hardware changes such as those included in the diesel technology package developed by Southwest Research Institute (SwRI) for CARB’s HD Omnibus rulemaking will enable MDV to meet the engine-based 3B-MAW in-use NO_x limits. Cummins does not agree the single system tested at SwRI demonstrated capability of the technology package for HD engines to robustly meet a 0.020 g/hp-hr NO_x standard given the variability and useful life requirements a manufacturer must address to ensure compliance. In addition, that technology package was evaluated using very different certification requirements on a much larger

displacement engine intended for a Class 8 vehicle application, all of which are inconsistent with MDV certification and applications.

The HD Omnibus technology package included dual selective catalytic reduction (SCR) systems and cylinder deactivation on a 15-liter diesel engine. The upstream SCR light-off catalyst was added to address cold start and light load NO_x emissions. However, the weighting of HD FTP cold start emissions (1/7 or ~14% of the cold/hot composite) for HD engine certification is much lower than the 43% cold weighting of the FTP 75 used for MDV certification. MDV manufacturers will need to design for even faster SCR warm-up not considered as part of the HD Omnibus demonstration. The downstream SCR system in the Omnibus package was intended to address NO_x emissions during higher load operation and would be located farther away from the engine. It was sized for the emission flow rates of a 15-liter engine, without consideration of the sizing and packaging constraints associated with a MDV pickup truck. The design tradeoffs and optimization of the overall aftertreatment system are much different for MDV, where manufacturers will need to balance meeting emissions requirements on the FTP 75 chassis-certification cycle and the >70% GCWR in-use towing conditions. Cummins does not agree that CARB has demonstrated feasibility of meeting the HD Omnibus 3B-MAW in-use standards for MDV.

The infeasibility of the 0.020 g/hp-hr in-use NO_x standard for diesel MDV will impact California customers who depend on those new vehicles for critical work. Based on registration data, many of the largest fleet users of Class 2b and 3 diesel pickup trucks currently in operation

in California are owned by city, county, or state governments, utilities, or other infrastructure-related entities. There are many more small businesses or individuals who own only one vehicle also doing important work. As noted above, Cummins urges CARB to reconsider the stringency of the MDV in-use standards and better align them with the stringency of the proposed MDV certification standards to ensure the requirements will be achievable with technologies that customers can readily adopt. Commenter 2376.

Response to Comment 146: Section 177 of the Clean Air Act requires that states must adopt standards identical to California's for a given weight class. New York is preempted from making certain modifications to California's rule, including any change to revise or remove the 0.020 grams per brake horsepower-hour (g/hp-hr) NO_x standard since it may result in the creation of a "third vehicle" which is prohibited under the Clean Air Act.

CARB addressed concerns about adding the three-bin moving average window (3b-MAW) in-use testing requirement during its ACC II rulemaking. CARB determined it was technically feasible for all MDVs to meet this standard since Class 2b-3 chassis-certified MDVs often utilize the same engine as Class 3 engine-certified MDVs. Therefore, the same emission control technology package demonstrated in the Heavy-Duty (HD) Omnibus Low NO_x rulemaking may be scaled for a medium-duty engine. Since the feasibility and applicability to engine-certified MDVs was previously demonstrated, CARB concluded that the same assessment of feasibility for chassis-certified MDVs was appropriate.

CARB considered whether the proposed portable emission measurement system (PEMS) in-use standard may be more stringent than the current chassis-based certification standards. However, the proposed standards are based on the HD Omnibus Low NO_x PEMS in-use standard that apply to all engines certified for use in HD and MDV applications. CARB determined that adopting the same standard and test method for chassis-certified MDVs was the best way to align stringency with the engine certified path for MDVs and to improve control of emissions during high load operation. CARB also determined that reducing the stringency of the PEMS in-use standard proposal for chassis-certified MDVs would not achieve necessary emission reductions nor the intent of aligning stringency with MDV and HD engine certification.

Additionally, CARB considered the stringency of the MDV in-use standards and the interest in aligning them with the stringency of the proposed MDV certification standards. CARB chose not to revise chassis certification standards to give manufacturers flexibility in managing both requirements. CARB noted that not having a family emission limit (FEL) for chassis-certified MDVs does not affect the stringency between chassis and engine certification because they are aligned through the in-use requirement for PEMS testing. The Department agrees with CARB's assessment.

Comment 147: In the HD Omnibus regulation, the 3B-MAW approach uses the engine's HD FTP CO₂ Family Certification Level (FCL) with units of g/hp-hr as a surrogate for work in calculations to determine both placement of each window into one of the three bins and the brake specific emissions for a bin. However, using the HD FTP CO₂ FCL is not always representative

of engine thermal efficiency on other duty cycles such as those encountered during in-use testing. Additionally, CO₂ does not always correlate well to power produced, such as when excess fuel is burned for thermal management. Using the FTP CO₂ FCL will result in higher emissions calculated for more efficient in-use duty cycles, which penalizes manufacturers with more efficient engines.

MDV do not have a CO₂ FCL since their CO₂ emissions are measured in g/mi on a chassis dynamometer for certification, so CARB proposes for manufacturers to determine one using CO₂ emissions and broadcast torque data during the chassis FTP 75 cycle. (CARB also proposes an option for manufacturers to determine the FCL using engine test procedures and the HD FTP cycle, which means running additional testing in an engine dynamometer test cell.) The penalty to manufacturers for using a CO₂ FCL derived from the FTP 75 is even greater than what is described above due to the higher cold start weighting of the FTP 75 compared to the HD FTP. During the cold cycles of the FTP 75, fuel must be burned for thermal management of the aftertreatment, which increases CO₂ emitted over the cycles. Multiplying this FCL by the pollutant emissions rates measured over in-use cycles (which are likely to have more efficient operation because of the high exhaust temperatures during towing) per CARB's proposed in-use test procedures over-estimates the brake specific in-use emissions.

CARB's proposal already makes use of broadcast torque by including it in the method for calculating the FTP 75 CO₂ FCL. To address the inaccuracies of using FCL, Cummins recommends using broadcast torque to determine work for bin placement and emissions

calculations, instead of normalizing by CO₂ and scaling by FCL, and is willing to work with CARB to determine the appropriate validation of this method. Commenter 2376.

Response to Comment 147: Section 177 of the Clean Air Act requires that states must adopt standards identical to California's for a given weight class. New York is preempted from making modifications, including any changes to the in-use emissions calculations, which may result in the creation of a “third vehicle” standard and is prohibited under the Clean Air Act.

The Department notes that CARB considered an issue related to family certification limits (FCL) error and determined, based on test data, that the error can be small and provided flexibility in the proposed rule to allow for an FCL to be determined through the chassis test procedures or engine test procedures. The intention of requiring chassis-certified MDVs to meet the same PEMS test procedures and standards as engine-certified MDVs and HD is to ensure both certification paths would be equivalent in stringency. The proposed rules allow the manufacturer to determine an FCL using the chassis test procedures or engine test procedures. This gives manufacturers flexibility to choose the best option for their products. The Department agrees with CARB's assessment.

Comment 148: The current in-use testing program for HD engines provides measurement allowances for all pollutants, including NO_x, based on extensive test programs to quantify the accuracy of the measurement systems. CARB did not conduct any such studies for the new 3B-MAW in-use testing program in the HD Omnibus regulation and removed the existing additive

measurement allowances in lieu of providing a conformity factor that is meant to cover not just measurement inaccuracies but also variability due to drivers, random duty cycles, ambient conditions, etc. That approach is carried over into CARB's proposed MDV in-use testing program. PEMS measurement accuracy is not yet quantified at NO_x levels targeted by the HD Omnibus or LEV IV rules. However, there is a test program underway by EPA, industry, and other stakeholders at SwRI to assess PEMS measurement accuracy at low NO_x levels. CARB should account for the outcomes of that test program by including separate PEMS measurement allowances in the final rule. Commenter 2376.

Response to Comment 148: Section 177 of the Clean Air Act requires that states must adopt standards identical to California's for a given weight class. New York is preempted from making modifications, including a change to include separate PEMS measurement allowances for the in-use medium-duty vehicle testing, which may result in the creation of a "third vehicle" standard.

The Department notes that CARB considered PEMS accuracy and determined no further changes were necessary at this time. CARB acknowledged PEMS accuracy at low NO_x levels will further develop over time and will take steps to align the MDV MAW standards with any HD Omnibus standards for PEMS accuracy. The Department will review any revisions to the ACC II and HD Omnibus regulations proposed by CARB and update New York's regulations as appropriate.

Comment 149: CARB's proposed MDV in-use testing procedure requires at least 50% of non-idle operation during the manufacturer's test to include towing with a combined vehicle weight

at a minimum of 70% GCWR. The minimum towing requirement could limit the available customer vehicles from which a manufacturer can select vehicles to fulfill the testing requirement of 5-10 vehicles per test group. For example, depending on trailer weight needed to meet the 70% minimum GCWR, a fifth-wheel hitch would be required. It may be difficult to find customers who have such equipment already installed on their vehicle and who are willing to allow the manufacturer to use their vehicle. Subsection 4.6.5 of the in-use test procedures gives CARB the authority to make changes to the testing requirements if a manufacturer has made a good faith effort to comply. Such flexibility is appreciated and likely needed. Commenter 2376.

Response to Comment 149: As discussed above, Section 177 of the Clean Air Act requires that states must adopt standards identical to California's for a given weight class. New York is preempted from making certain modifications, including any changes to the testing requirements, which may result in the creation of a “third vehicle” standard.

The Department notes that CARB determined the proposed rules provided manufacturers flexibility regarding in-use testing requirements. Heavy-duty in-use testing requirements require manufacturers to perform testing on a heavy-duty fleet vehicle while it is in normal service for that fleet with whatever load it may be carrying. The proposed chassis-certified PEMS in-use testing requirements will require manufacturers to procure a customer vehicle and properly operate and load the vehicle for testing rather than be at the mercy of whatever the customer would do in their own normal usage. CARB also determined the requirement for a minimum test weight of 70% gross combined weight rating (GCWR) is not overly burdensome and is

necessary to ensure these vehicles are tested at the weight loadings they are designed to tow or carry. Additionally, there is flexibility for the manufacturer to request a change in the testing requirement if the manufacturer makes a good-faith effort to obtain vehicles to complete in-use testing requirements. The Department agrees with CARB's assessment.

Comment 150: Cummins is committed to continuing to work with CARB and other stakeholders on 15-day changes to ensure MDV in-use testing requirements are finalized in such a way to achieve the shared goal of real-world emission reductions. Commenter 2376.

Response to Comment 150: The Department supports continued dialogue and engagement with CARB and all stakeholders to implement the ACC II standards successfully in New York State.

Vehicle Availability/Affordability

Comment 151: I believe the sales of EV car (sic) have slowed down quite a bit. Commenter 1.

Comment 152: Regulations like ACC II would likely further induce manufacturers to provide even more ZEV models. The evidence for this is already observed in several EU countries and China, where in 2016 EV model availability was relatively low. From 2016 to 2021, stronger ZEV regulations in these jurisdictions have helped increase EV model availability and supply, which in turn led to significantly increased sales by 2021. In Germany, for example, ZEV sales went from 3.01% in 2019 to 26% in 2021, an increase of about 23% in two years. That takeoff in

German ZEV sales coincided with the “Euro 6” CO2 emission performance standards taking effect, under which 95% of MY 2020 vehicles and 100% of MY 2021 vehicles must meet a fleet average of 95 g/km of CO2 emissions. The German experience demonstrates that manufacturers can accelerate ZEV sales quickly given a strong policy push. Commenter 2617.

Comment 153: And customers increasingly want these vehicles as well. From 2020 to 2021, E.V. total sales in New York nearly doubled. Commenter 4431.

Response to Comments 151-153: EV sales and EV sales percentage, based on new EV registrations, in New York State have generally increased every year as shown on Atlas Public Policy’s EValuateNY EV dashboard.² Total EV sales doubled from 2020 to 2021, during the height of the COVID pandemic. The percentage of overall sales also more than doubled from 2020 (1.7%) to 2022 (4.6%) and overall EV sales remained steady despite an ailing economy and ongoing supply chain issues. EV sales in New York State currently exceed 6.5%.

Comment 154: The average home and/or business can not (sic) afford anything as for the EV dream (because of inflation). Commenter 1.

Comment 155: And what about the cost? Unless the price for an electric vehicle decreases dramatically there will be thousands of New Yorkers who cannot afford one of these vehicles.

² <https://atlaspolicy.com/evaluateny/>

How are they supposed to get to work? go shopping? or do any of the other things we rely of our vehicles for. Commenter 2057.

Comment 156: Automakers are increasingly offering more makes and models of electric vehicles annually, with currently sixty-nine models of EVs available on the road today. These vehicles include sedans, hatchbacks, SUVs, and pick-up trucks, allowing for a wide variety of customer choice on electric vehicles, depending on drivers needs. Commenter 2617.

Comment 157: I am planning on purchasing an EV in 2023 for my family. I am sick and tired of paying \$55 to fill my tank every 2 weeks. I also want to greatly decrease my own carbon emissions to help improve air quality and contribute to healing our climate. We need the Advanced Clean Cars program to help others to avoid high gasoline prices and reduce carbon emissions. EVs must be made more affordable before the average New Yorker will be able to consider purchasing. Please finalize the Advanced Clean Cars program rule making process before 2023. Commenter 2663.

Response to Comment 154-157: The number of EV models currently being offered for sale has steadily increased with each new model year. This trend is expected to continue based on manufacturer announcements. See Response to Comments 151-153. EVs are being sold at various price points, including several, affordable entry level models. The ACC II regulation also includes provisions that incentivize OEMs to make discounted Manufacturer's Suggested Retail Price (MSRP) new ZEVs and PHEVs and used ZEVs and PHEVs available to disadvantaged

community-based mobility programs and residents, as well as low MSRP ZEV and PHEV passenger cars and light-duty trucks to all New York residents. New York State also offers up to a \$2,000 point of purchase rebate through the Drive Clean Rebate program which may be combined with the federal tax credit of up to \$7,500.

Inflation resulting from state and federal economic policies is beyond the scope of this rulemaking. The Department notes, however, that current, high interest rates and increasing retail prices of new vehicles, for all fuel types, are making new vehicle purchases challenging. Approximately 20% of new vehicle buyers and 10% of used vehicle buyers in 2022 had 7-year loans.³

Comment 158: Founded in 2009, Rivian is an independent U.S. company with more than 13,000 employees worldwide. It is Rivian's mission to Keep the World Adventurous Forever. Our focus is the design, development, manufacture, and distribution of all-electric adventure vehicles, specifically pickups, sport utility vehicles ("SUVs"), and commercial vans. Key to the success of our mission, these vehicles will displace some of the most polluting passenger vehicles and trucks on the road today.

Rivian brought the first electric truck to market in 2021 when we launched the R1T pickup from our manufacturing facility in Normal, Illinois, followed shortly thereafter by the R1S SUV and a

³ <https://www.autonews.com/finance-insurance/84-month-loans-surge-new-and-used-vehicles>

commercial delivery van for Amazon. All our current vehicles satisfy ZEV requirements under the ACCII rules. The R1T and R1S provide all-electric options in segments where added utility is a necessity. The R1T has an EPA-certified 328-mile range and 11,000lbs of towing capacity, while the R1S is a seven-passenger full-sized SUV with 321-mile range; both are well-equipped for off-roading in a range of climates. Separately, our Class 2b and 3 electric vans eliminate tailpipe emissions from last-mile delivery and Rivian is committed to producing 100,000 vans for our launch customer, Amazon. Commenter 2028.

Comment 159: Rivian's vehicles meet the requirements of the ACCII standards and are proof that these regulations are achievable. Commenter 2028.

Comment 160: During the ACC II hearing at CARB, no automaker opposed the regulations. While many stated that hitting the ZEV targets could be a challenge, none said it was infeasible. Considering that automakers have already announced over \$210 billion dollars of investments to support the transition towards ZEVs in the United States Several (sic) automakers have committed to electrifying most or all of their fleet in the 2025-2035 time frame, when ACC II will be in effect. This includes General Motors, Audi, and Volvo , the ACC II standards merely support and accelerate the industry's transition to ZEVs and ensuring that New York State obtains the zero-emission vehicles first. Commenter 2617.

Comment 161: Tesla's mission is to accelerate the world's transition to sustainable energy. More -- excuse me -- moreover, Tesla believes the world will not be able to solve climate change crisis

without directly reducing air pollution emissions, including carbon dioxide and other greenhouse gases from the transportation and power sectors. To accomplish this mission Tesla designs, develops, manufactures and sells high-performance, fully electric vehicles and energy generation and storage systems installs and – and installs and maintains such systems. We currently produce and sell four fully electric zero-emission light-duty vehicle models in addition to a Class 8 heavy-duty semi. Commenter 4434.

Response to Comments 158-161: The Department agrees that the ACC II regulations are achievable, especially since the 100% ZEV sales requirement does not become effective until model year 2035. The Department did not receive any opposition from vehicle manufacturers related to the annual ZEV sales percentages during New York’s adoption of the ACC II regulation.

Comment 162: A lower total cost of car ownership (you won't be held to the wild swings in gas prices!). Commenter 8-204, 206-208, 210-355, 357-422, 424-458, 460, 478, 493-494, 496-497, 926, 1104, 1183-1313, 1315-1317, 1319-1337, 1339-1577, 1579-1671, 1673-1700, 1770, 1941, 1957, 1973, 1976, 1982, 2001, 2042, 2046, 2063, 2067, 2073-2126, 2128-2212, 2214-2248, 2250-2301, 2303-2336, 2338-2345, 2347-2351, 2353-2361, 2363-2375, 2377-2382, 2384-2511, 2513-2530, 2532-2538, 2540-2572, 2574, 2577-2592, 2594-2616, 2618-2620, 4425.

Comment 163: It will also lower the total cost of car ownership and create manufacturing jobs. Commenter 1672.

Comment 164: No one should really be buying gasoline-powered cars anymore. If you have solar panels on your roof, you can get free energy to power your car. And charging at a station costs much less than gasoline at a pump. Let's encourage people to make the right choices for themselves, for the planet, and for future generations. Commenter 3201.

Comment 165: EVs even save owners money on the long run - better for everyone! Commenter 3501.

Comment 166: This is a perfect time to promote this message with the public due to high gas prices..not being stuck with fluctuating gas prices could be a big selling point for electric vehicles. Commenter 3593.

Response to Comment 162-166: As set forth in the RIS, ZEVs are expected to have a lower total cost of ownership than conventional internal combustion engine vehicles.

Comment 167: The technology is workable. But, financially there are many issues to resolve. We do have a goal for 2035. Commenter 4326.

Response to Comment 167: A growing number of ZEVs and PHEVs are available today and that number is expected to grow. See also Response to Comment 154-157 and Response to Comment 171-177.

Comment 168: Despite tremendous publicity and extensive subsidies nothing can obscure the fact that EVs remain extremely costly for consumers and offer unproven maintenance and reliability records. I will never buy a BEV because I cannot afford a car that does not offer the same flexibility and convenience as an ICE vehicle. Commenter 2573.

Response to Comment 168: Battery electric vehicles (BEVs) have a lower total cost of ownership, lower maintenance costs, and lower refueling costs (especially with home charging) than ICEVs. Maintenance and reliability should be better than comparable ICEVs since BEVs have fewer components. New BEVs come in a variety of sizes and vehicle classes and offer performance comparable, if not better than, ICEVs. PHEVs and ICEVs will continue to be available through model year 2034 for specific applications without a feasible ZEV option.

Comment 169: As was seen during the first Clean Car Standards, auto manufacturers are more likely to send larger inventories and their newest ZEVs to states that have strong regulations on the books. Therefore, adoption of ACC II is a key strategy to ensure that New Yorkers are able to purchase the vehicles they want to drive, and not have to go out of state to purchase their vehicle of choice. Commenter 2617.

Response to Comment 169: The ACC II regulation phases in ZEV requirements over time (MY2026-2035), which should ensure that consumers are capable of finding a vehicle that meets their needs. New York State residents may travel out of state to purchase vehicles, however, the vehicle must be compliant with New York's new vehicle emissions standards to be registered for use in New York State. Non-compliant vehicles will be denied registration.

Comment 170: ACC II is a regulation on new vehicle purchases. However, the majority of drivers purchase their vehicles from the secondary or used market, with only approximately 26% of vehicles being purchased new in 2021. Therefore, the sooner that New York can transition the new vehicle market to zero-emission, the sooner a robust, used zero-emission vehicle market will be available. This will help to ensure that all New Yorkers have access to clean vehicles and help the state fully zero-out emissions from the transportation sector. Commenter 2617.

Response to Comment 170: Used vehicles are beyond the scope of this rulemaking. However, the Department is aware of the importance of the used vehicle market and the benefits of transitioning that market to greater numbers of ZEVs. A used EV tax credit⁴⁴ is currently available for qualified vehicles. New York State is considering options to further incentivize the purchase of used ZEVs.

⁴⁴ <https://www.irs.gov/credits-deductions/used-clean-vehicle-credit>

Incentives

Comment 171: This plan is all well and good, but until the state is ready, as in the past, to offer incentives toward the purchase of EV Chargers (sic) and/or the purchase of EV Cars (sic), this is all a dream. Commenter 1.

Comment 172: Affordable, reliable electric cars are already on the market and will only get cheaper. What New York needs is a mandatory shift to electric personal transportation, backed by a meaningful financial commitment from the state to build public charging infrastructure and subsidize the removal of high-polluting vehicles from the roads through tax credits for the purchase of a new or used electric vehicle. Comment 175.

Comment 173: Having just purchased an electric car, I can tell you that the exact same car gas powered was \$10,000 cheaper. Most people would not choose this option because of the expense. We need to make electric cars cheaper. We need to have a bigger rebate and we need to have no tax on electric vehicles. Commenter 1325.

Comment 174: MANY MORE CONSUMERS WOULD BUY AN ELECTRIC VEHICLE IF THERE WAS MORE 'INCENTIVE' AT THE MOMENT OF PURCHASE. Commenter 2745.

Comment 175: CONSUMER'S NEED 'PT. OF SALE' IMMEDIATE INCENTIVES, TO BUY EXPENSIVE 'E.V.' s ! Commenter 3277.

Comment 176: Definitive tax rebates should be continued for electric cars including Hybrid and Plug in cars. Commenter 4125.

Comment 177: Tax incentives will make this easier to achieve. Commenter 4304.

Response to Comments 171-177: Vehicle purchase incentives are beyond the scope of this rulemaking. The Department notes that New York State currently offers a point of purchase rebate of up to \$2,000 towards the purchase or lease of qualifying plug-in electric vehicles through the New York State Energy Research and Development Authority's (NYSERDA) Drive Clean Rebate program.⁵ There are currently more than 60 vehicle models that qualify for a rebate. Further, the ACC II regulation includes voluntary provisions for original equipment manufacturers (OEMs) to make used ZEVs and PHEVs and low-price ZEVs and PHEVs available in New York State.

New York State also offers several incentive programs related to electric vehicle charging equipment. There is a state income tax credit of up to \$5,000 for the purchase and installation of an electric vehicle charging stations at commercial and workplace locations.⁶ The tax credit expires at the end of 2025. Multi-unit dwellings that qualify as businesses can receive up to

⁵ <https://www.nyserda.ny.gov/All-Programs/Drive-Clean-Rebate-For-Electric-Cars-Program/How-it-Works>

⁶ https://www.tax.ny.gov/pit/credits/alt_fuels_elec_vehicles.htm

\$18,000 in rebates and tax credits on a two-port installation.⁷ The Department offers a Municipal ZEV rebate program that provides rebates to local governments for costs associated with the installation of eligible infrastructure that supports public use of clean vehicles.⁸ NYSERDA's Direct Current Fast Charge Regional Economic Development Council (DCFC REDC) program allocated \$11 million to develop DCFC Electric Vehicle Supply Equipment (EVSE) in New York State to help meet the needs of growing EV populations, boost driver confidence when traveling long distances, and accelerate EV adoption in New York State.⁹ NYSERDA's Charge Ready program provided more than \$17 million in rebates for the installation of Level 2 EVSE at work multi-unit dwellings, and retail locations.¹⁰ The Charge Ready program is currently paused until new funds are allocated. The New York Power Authority's (NYPA) EVolve NY program was allocated \$250 million with the goal of making electric vehicles easy to own in New York State and decarbonizing the state's transportation sector.¹¹

The Department of Public Service's (DPS) Make-Ready program allocated \$701 million to support the development of electric infrastructure and equipment necessary to accommodate an increased deployment of EVs within New York State by reducing the upfront costs of building charging stations for EVs.¹² On January 19, 2023, the Public Service Commission (PSC)

⁷ <https://www.nysenda.ny.gov/All-Programs/ChargeNY/Charge-Electric/Charging-Station-Programs/Charging-at-Multifamily-Properties>

⁸ <https://www.dec.ny.gov/energy/109181.html>

⁹ https://portal.nysenda.ny.gov/CORE_Solicitation_Detail_Page?SolicitationId=a0rt00000138SPVAA2&_gl=1*1kts4ed*_ga*MjAyNDY2OTYxLjE2NzE0NTM5NzM.*_ga_DRYJB34TXH*MTY3Mjg0Mzc5NC4xLjEuMTY3Mjg0NDY3Mi4wLjAuMA

¹⁰ <https://www.nysenda.ny.gov/All-Programs/ChargeNY/Charge-Electric/Charging-Station-Programs/Charge-Ready-NY>

¹¹ <https://evolveny.nypa.gov/en/fast-charging-hubs-electric-vehicles-new-york>

¹² <https://jointutilitiesofny.org/ev/make-ready>

announced three additional programs to reduce the impacts of demand charges on electric vehicle charging as part of Case Number 22-E-0236.¹³ These programs include a demand charge rebate that provides a 50% demand charge credit for all commercial and public DCFC charging-use cases, a commercial managed charging program that provides use-case specific incentives in lieu of the demand charge rebate, and an EV phase-in rate which begins as a time-of-use rate and transitions to a demand charge as charging station utilization improves.

Comment 178: State of ny (sic) should offer better electricity discount for charging electric vehicles. Currently utility providers offer poor discounts even on off peak hours. My kWh rate is over 30 cents/kWh. There should be some type of state controls over the widely fluctuating rates. Maybe better programs for home solar with battery storage to enable homeowners to lessen the overall GHG going into the atmosphere. Commenter 4225.

Response to Comment 178: Electric utility rates and associated discount programs are beyond the scope of this rulemaking. The Department notes, however, that several public utilities including ConEdison^{14,15}, Central Hudson¹⁶, National Grid¹⁷, and Orange & Rockland Utilities¹⁸ offer discounted residential time-of-use rates and/or smart charging programs. The Department is

¹³ www.dps.ny.gov

¹⁴ <https://www.coned.com/en/our-energy-future/technology-innovation/electric-vehicles/electric-vehicle-drivers/electric-vehicles-and-your-bill>

¹⁵ <https://www.fleetcarma.com/smartchargenewyork/setup/>

¹⁶ <https://www.cenhud.com/my-energy/my-energy-options/time-of-use-billing/ev-time-of-use-rate/>

¹⁷ <https://www.nationalgridus.com/Time-of-Use>

¹⁸ <https://www.oru.com/en/404?item=%2four-energy-future%2ftechnology-innovation%2felectric-vehicles%2fny-residential-ev%2felectric-vehicles-your-bill&user=extranet%5cAnonymous&site=oru&url=%2fen%2four-energy-future%2ftechnology-innovation%2felectric-vehicles%2fny-residential-ev%2felectric-vehicles-your-bill>

actively engaged with other state agencies and authorities, as well as stakeholders, on these topics See also Response to Comment 171-177.

Environmental and Health Benefits

Comment 179: The benefits of adopting the ACCII rule are many, including:

- A 50% reduction in planet-warming greenhouse gas emissions from passenger cars by 2040.
- Fewer premature deaths, fewer asthma attacks, and fewer missed days of work due to pollution-related health concerns. Commenter 8-204, 206-208, 210-355, 357-422, 424-458, 460, 478, 493-494, 496-497, 926, 1104, 1183-1313, 1315-1317, 1319-1337, 1339-1577, 1579-1671, 1673-1700, 1770, 1941, 1957, 1973, 1976, 1982, 2001, 2042, 2046, 2063, 2067, 2073-2126, 2128-2212, 2214-2248, 2250-2301, 2303-2336, 2338-2345, 2347-2351, 2353-2361, 2363-2375, 2377-2382, 2384-2511, 2513-2530, 2532-2538, 2540-2572, 2574, 2577-2592, 2594-2616, 2618-2620, 4425.

Comment 180: Adopting the ACCII will help us move toward a 50% reduction in planet-warming greenhouse gas emissions from passenger cars by 2040. Commenter 2211.

Response to Comments 179-180: The Department agrees that the ACC II rulemaking will reduce greenhouse gas emissions and is expected to result in fewer premature deaths, asthma attacks, and missed workdays due to pollution-related health issues.

Comment 181: Gas-powered cars are contributing minimally to climate change. China and India are literally the major drivers of climate change! If every car in America were coercively forced to be electric, the overall effect on climate change would be barely measurable. That's actually true, by the way. You'd just have to search other credentialed, scientific, and independent sources to find out those facts. Please don't use exaggerations and withheld facts to manipulate New Yorkers into agreeing to this ill-conceived law. We deserve better than what is being foisted on Californians. Commenter 205.

Response to Comment 181: The Department disagrees with the Commenter's assertion that internal combustion engine vehicles contribute minimally to climate change. On-road mobile sources are currently the second largest source of greenhouse gases in New York State when calculated using the requirements of New York's CLCPA. The ACC II regulation only applies to new vehicles sold in New York starting with model year 2026. There is no prohibition on the use of existing vehicles and owners will not be forced to scrap, or otherwise remove existing vehicles from service. The Commenter has not provided any credentialed, scientific, and independent sources to support the assertions made. The Department also rejects the assertion that facts have been exaggerated or withheld, or that efforts are being made to manipulate the public.

Comment 182: Exposure to toxic tailpipe pollution such as NOx, Particulate Matter (PM), and Ozone is linked to higher rates of premature death, cancer, heart disease, and breathing problems like asthma in kids and adults. Commenter 459, 461-474, 476-477, 479-491, 495, 1701-1769, 1771-1940, 1942-1956, 1962, 1971, 1979-1981, 1986, 1995, 2020, 2039.

Comment 183: I am counting on you to protect New Yorkers' health and our climate by leading the transition to an all-electric future. Passing a strong ACCII rule will ensure New York meets its transportation greenhouse gas reduction targets and improves our state's air quality.

Commenter 459, 461-474, 476-477, 479-491, 495, 1701-1769, 1771-1940, 1942-1956, 1962, 1971, 1979-1981, 1986, 1995, 2020, 2039.

Response to Comments 182-183: The Department agrees with these comments to the extent they are supported by the assessments made by the Department and CARB in the ACC II rulemaking documents.

Comment 184: Making the transition to 100 percent zero-emission vehicle (ZEV) sales as well as reducing diesel emissions from trucks are vital steps for the Empire State to take. Cars and trucks are responsible for more heat-trapping emissions than almost any other sector. Tailpipe emissions not only drive climate change but form fine particulate matter, which is associated with the greatest proportion of adverse health effects related to air pollution in the country. ZEVs are a proven technology and will help ensure New York is on track to meet its climate goals and protect public health. Commenter 498-906, 908-925, 927-1103, 1105-1182, 1958-1961, 1963-1970, 1972, 1974-1975, 1977, 1983-1985, 1987-1994, 1996-2000, 2002-2019, 2021-2027, 2029-2038, 2040-2041, 2043-2045, 2047-2056, 2058-2062, 2065-2066, 2068-2072, 2127, 2249, 2302, 2346, 2352, 2383, 2512, 2531, 2539, 2575.

Comment 185: It is crucial to understand that adoption of these regulations are vital for New York to reduce heat-trapping gas pollution and this action is also mandated by New York's ambitious climate plan. Transportation is one of the biggest sources of global warming emissions in New York. Tailpipe emissions continue to worsen climate change and also result in fine particulate matter, which is associated with the greatest proportion of adverse health effects related to air pollution in the United States. I support this action because making the transition to 100 percent zero-emission vehicle (ZEV) sales as well as reducing diesel emissions from trucks are vital steps for the Empire State to take. Cars and trucks are responsible for more heat-trapping emissions than almost any other sector. ZEVs are a proven technology and will help ensure New York is on track to meet its climate goals and protect public health. Commenter 1162.

Response to Comments 184-185: The Department agrees with these comments to the extent they are supported by the assessments made by the Department and CARB in the ACC II rulemaking documents. The Heavy-Duty Low NO_x Omnibus rule is beyond the scope of this rulemaking.

Comment 186: Many studies have shown that bad air quality increases the rates of several causes of early death. Commenter 895.

Comment 187: These rules would achieve rapid reductions in climate-changing emissions and air pollution. Commenter 920.

Comment 188: Fossil fuel-powered cars are contributing to climate change, creating air pollution, and causing heart and respiratory illnesses. Commenter 1638.

Comment 189: The ACC II rules represent a critical public health intervention that will reduce the harms of traffic pollution and save lives in the Empire State. Commenter 1978.

Comment 190: As NY has one of the largest populations in the United States we account for a significant amount of green house (sic) gases from the transportation sector. Commenter 2120.

Comment 191: NO_x is a pollutant in its own right and is also a precursor of dangerous smog and fine particulate pollution. Fine particulates (smaller than 2.5 microns, also known as PM_{2.5}), which penetrate deep into the lungs and cause a host of adverse health outcomes, are also emitted directly in large quantities by on-road vehicles in New York, accounting for nearly 4,000 tons of direct PM_{2.5} pollution. Commenter 2617.

Comment 192: Clean air in our urban spaces is a health imperative. Too many people sicken and die from the poor quality of urban air. With this initiative, we can save lives and provide cleaner air for everyone. Commenter 2630.

Comment 193: As you are aware, transportation remains one of the largest and most persistent sources of pollution in New York. Not only do vehicle tailpipes drive climate emissions, but they also release fine and ultra-fine particulate matter, which hangs in the air as local pollution damaging the health of residents across the state. Commenter 4428.

Comment 194: There's no place for gas-powered cars in our climate future. As you know, the transportation sector is one of our state's largest contributors to climate change accounting for nearly a third of all greenhouse gas emissions in the state. Tailpipe pollution from light duty vehicles plays a significant role as the vast majority of New Yorkers continue to buy and drive gas-powered vehicles. Reducing emissions from light-duty vehicles is critical to achieving New York state's emission reduction goals and mitigating the impacts of climate change. Commenter 4430.

Comment 195: Failure to adopt the regulation will mean that New York and its residents will be delayed from reaping the multitude of benefits associated with the transition towards a zero-emission transportation future, including up to one hundred and forty-seven billion dollars in net societal benefits. Since automakers will likely send E.V. to the states that² has adopted ACC II first. Commenter 4431.

Comment 196: Adopting ACC II is not just good for the climate, it will also improve air quality in health, which will continue to improve over time as cleaner energy is added onto the grid. Commenter 4431.

Comment 197: In New York, the transportation sector is one of the biggest sources of emissions. While greenhouse gas emissions in many sectors have declined since 1990, transportation emissions have increased by ten percent between 1990 and 2019. Thus, it is imperative to address this to combat climate change. Commenter 4432.

Response to Comments 186-197: The Department agrees with these comments to the extent they are supported by the assessments made by the Department and CARB in the ACC II rulemaking documents.

Comment 198: New York has a long history of leadership to implement more health-protective vehicle standards, and the implementation of the ACC II rules will provide the much-needed emission reductions for healthier air for all residents, and especially those most impacted by transportation pollution. The American Lung Association's State of the Air 2022 report found more than 1.8 million New Yorkers are living with asthma, including nearly 330,000 kids, and millions more are at greater risk due to the harms of transportation emissions. Air pollution contributes to a wide range of negative health impacts such as asthma attacks, heart attacks and strokes, and other lung and cardiovascular diseases. Commenter 1978.

Comment 199: The Lung Association's Zeroing on Healthy Air report found that New York will benefit from a widespread shift to zero-emission transportation and electricity. We found that

this transition to zero-emission technologies – including the schedule for 100 percent zero-emission passenger vehicle sales in 2035 – in New York could yield \$68 billion in public health benefits, 6,200 premature deaths avoided, 159,000 asthma attacks avoided, and 825,000 in lost workdays avoided by 2050. Implementing the ACCII programs is an important step in bringing these health benefits home. Commenter 1978.

Comment 200: As you know, the transportation sector in New York is responsible for more climate damaging emissions than almost any other sector. To meet our aggressive climate goals, as well as to clean our local air and strengthen local economies, we must rapidly move away from combustion powered vehicles of all kinds.

Not only are cars and trucks a climate issue for New York, but they are also a public health issue. Diesel pollution in particular is responsible for dangerous levels of nitrogen oxide and fine particulate matter that increases the risk of severe respiratory illnesses and other health problems. Studies continue to link long-term exposure to fine particulate matter with an increased risk of death from the COVID-19 pandemic. Commenter 2576.

Comment 201: By promoting the transition to ZEVs, these regulations will minimize criteria pollutants from medium- and heavy-duty vehicles. This will improve air quality and yield public health benefits, in particular for low income and communities of color adjacent to ports, highways, and other transportation infrastructure that have been unduly burdened by diesel vehicle emissions. The American Lung Association estimates that transportation electrification

can yield significant public health benefits saving the New York over \$4 billion in health impact costs and avoiding 351 premature deaths, 5,000 by asthma attacks, and 18,735 workdays lost in 2050. Commenter 2593.

Comment 202: Commissioned by the Natural Resources Defense Council (NRDC) and the Sierra Club, the consulting firm Environmental Resources Management (ERM) recently published a report analyzing the potential public health, environmental, and economic impacts of ACC II in New York under different scenarios.

The report finds that the estimated cumulative net societal benefits of ACC II in the state through 2050 range from \$138 billion to \$147 billion (in constant 2021\$), depending on how rapidly the grid decarbonizes and to what extent manufacturers use the available compliance flexibilities. Among these societal benefits are climate and public health benefits from by 2050, ACC II will reduce GHG emissions from light-duty vehicles (LDV) by 95%. It will also reduce NOx and PM emissions by 92% to 93%, which will result in up to 447 to 501 fewer premature deaths and 433 to 485 fewer hospital visits from breathing polluted air. Commenter 2617.

Comment 203: Moving from combustion to zero-emission passenger vehicles will not only address one of the major sources of climate pollution; it will also help New Yorkers breathe cleaner air by reducing health-harming pollution in the exhaust of fossil fuel-powered vehicles. Millions of New Yorkers live in areas that fall short of federal health-based air quality standards for ozone. Residents of the New York Metropolitan Area (“NYMA”) currently experience the

highest ozone concentrations in the U.S. outside of California, and pollution from mobile sources is the biggest source. More than half of all New Yorkers – and nearly two-thirds of all New Yorkers of color - live in counties that received a D or F grade from the American Lung Association’s State of the Air report. The New York metropolitan area contains some of the worst ozone (smog) pollution in the country. This figure reflects tailpipe emissions and does not include the emissions from production and refining of fuels used for transportation, which would make the share even higher.

New York was recently downgraded to “severe” nonattainment for the Bush-era 2008 ozone standard of 75 ppb and is also out of compliance with the 2015 standard of 70 ppb. Recent modeling demonstrates that, in New York and throughout the region, improvements in air quality have “stalled,” ozone levels remain “persistently high,” and areas like the NYMA have experienced “unusually high” spikes in ozone concentrations in recent years. The Ozone Transport Commission, in a recent letter to the U.S. Environmental Protection Agency (EPA), admits that the region has “lost forward momentum after three decades of improving air quality.”

The OTC found that “[e]very year that the [region] is not in attainment of the NAAQS, . . . residents of the region face increased risk of premature death and decreased quality of life due to the health effects of ozone.” And DEC has acknowledged the “significant hospitalization costs and mortality rates” caused by New York’s elevated ozone levels, with both of those indicators exceeding national averages.

Climate change will only exacerbate New York’s persistent ozone pollution problem. By enhancing atmospheric conditions that promote ozone formation, scientists have concluded that climate change “has been and will continue to increase ozone concentrations.” Across the U.S., models predict that this will cause more exceedances of existing ozone air quality standards. Moreover, as the climate changes, it is expected that the peak ozone season will be prolonged, leading to more high ozone days and additional public health impacts.

Moreover, DEC acknowledges the fact that New York State’s on-road mobile source sector “significantly impact[s] downwind monitors,” contributing significantly to regional air pollution.

Generally, mobile source NO_x emissions contribute more to ambient ozone concentrations than other precursors, with on-road light duty, on-road heavy-duty, and non-road diesel sectors all contributing significantly to modeled ozone in 2025 in large swaths of the U.S. DEC has previously acknowledged the “increasing difficulty of achieving additional” NO_x and other ozone precursor emissions reductions. Using the “best inventory available,” OTC data show that mobile sources are “now the number one contributor to high ozone levels” in the region. In the NYMA specifically, recent contribution modeling projects that mobile sources will account for over 70% of high ozone levels in 2023—a higher percentage than any other nonattainment area in the region.

Pollution from motor vehicle engines and vehicle tailpipes continue to harm the public’s health, welfare, as well as the broader environment and is a major source of criteria pollutants as well as

greenhouse gas emissions. If New York's adoption of stricter-than-federal standards were needed in past decades, there is more reason than ever for the state to adopt new standards to meet these compelling and extraordinary conditions. Commenter 2617.

Comment 204: Adopting the ACC II will bring net societal benefits to New York. A recent report from the Natural Resources Defense Council and the Sierra Club found that societal benefits through 2050 range from a hundred and thirty-eight billion to a hundred and forty-seven billion dollars. Included in these benefits are more than four hundred and fifty fewer premature deaths, more than four hundred fewer hospital visits, and a decrease in greenhouse gas emissions by ninety-five percent. Commenter 4428.

Comment 205: The cumulative societal impacts that New York stands to benefit from with the adoption of ACC II are staggering. According to a regionally reviewed report by our colleagues at N.R.D.C. and Sierra Club, it is estimated that ACC II adoption will result in significant reductions in greenhouse gas emissions, nitrogen oxide emissions, and particulate -- particulate matter emissions, which will have a major -- which will have major climate change and public health benefits. Specifically, the program is estimated to result from up to five hundred and one fewer premature deaths, and four hundred eighty-five fewer hospital visits from breathing polluted air. Commenter 4430.

Comment 206: A report from N.R.D.C. and Sierra Club finds that among these societal benefits are public health and climate benefits from the states reduced NOx particulate matter and

greenhouse gas emissions. And it includes annual, light-duty vehicles, fleet, P.M. particulate matter, and NOx emissions are expected to decrease by more than ninety percent which will result in more than four hundred and fifty fewer premature deaths and more than four hundred and thirty hospital visits from breathing polluted air. Commenter 4432.

Comment 207: The American Lung Association State of the Air 2022, report on that more than one point eight million New Yorkers are living with asthma including over three hundred thousand children, and there are seven million New Yorkers living in communities facing unhealthy levels of ozone pollution. Air pollution contributes to a wide range of negative health impacts, such as asthma attacks, heart attacks and strokes, and other lung and cardiovascular diseases. We also know that climate change is a major threat to clean air progress and it's amplifying a wide range of negative health consequences. Of course, the transportation sector is a major source of these harmful pollutants and needs to be addressed, and we think that implementing the ACC II standards will drive the real-world emission reductions needed to secure cleaner air and meet the goals of the Climate Leadership and Community Protection Act. The ACC II standards also -- they provide strong levels of protection by cleaning up both combustion vehicles and driving the state towards a hundred percent zero-emission vehicle sales by 2035. The -- the combustion standards are critical and they'll reduce emissions of smog-forming NOx emissions and particle pollution emissions from new vehicle engines, and of course, transitioning to zero-emission technologies will provide certainty in emission reductions in the world by eliminating tailpipe emissions. Commenter 4435.

Comment 208: So in addition to the -- the other report that was mentioned by N.R.D.C. and the Sierra Club, last year the Lung Association issued our zeroing in on Healthy air report, which also found significant health benefits from a widespread shift to zero-emission transportation and electricity. We found that making this transition across the board zero-emission technologies for transportation and in the power sector, including the schedule for one hundred percent zero-emission passenger vehicle sales in 2035, and the previously adopted Advanced Clean Truck policies that New York is implementing, New York State could generate sixty-eight billion dollars in public health benefits, over six thousand premature deaths avoided, one hundred and fifty-nine thousand asthma attacks avoided, and over eight hundred thousand locked work days avoided because the air will be that much cleaner by 2050. So implementing the ACC II programs without delay is really a critical step in bringing these health benefits home to communities across New York. Commenter 4435.

Comment 209: Doing so will deliver massive benefits to every corner of New York State, totaling the benefits in terms of cleaner air, public health, and lower greenhouse gas emission. The rule will yield over a hundred and thirty-five billion to the state through 2050. Finalizing this action will mean that fewer people will die, fewer people will get sick, and will shave off a large portion of our state's planet heating emissions. Commenter 4436.

Response to Comments 198-209: The Department agrees that the proposed rules are expected to provide significant health benefits, which is why New York State has chosen to implement California's more stringent, and protective, on-road motor vehicle emissions standards since

1990. As set forth in the RIS, the New York Metropolitan area has been reclassified from moderate non-attainment of the ozone national ambient air quality standards (NAAQS) to severe. Reducing on-road transportation emissions will provide a benefit to State residents, particularly low-income communities and disadvantaged communities which have historically been burdened with poor air quality due to their proximity to roadways.

The Department utilized Northeast States for Coordinated Air Use Management (NESCAUM) sponsored U. S. Environmental Protection Agency (EPA) CO-Benefits Risk Assessment (COBRA) modeling to evaluate the anticipated health benefits of ACC II adoption in New York State. It is estimated that New York State may experience up to 181 fewer cardiopulmonary deaths, 21 fewer cardiovascular hospitalizations, 15 fewer respiratory illness hospitalizations, and 45 fewer asthma emergency room visits from 2026-2040.¹⁹ Overall, the net benefit of ACC II adoption in New York State is estimated to be \$63.57 billion.²⁰

Comment 210: I moved to the Hudson Valley about 3 years ago. I am dismayed to learn that our air quality in this gorgeous part of New York is so bad. Please, it is way beyond time to read the handwriting on the wall and do everything we can to protect our natural resources, here in New York and everywhere. Commenter 2667.

¹⁹ NYSDEC. Revised Regulatory Impact Statement. Page 71.

²⁰ NYSDEC. Revised Regulatory Impact Statement. Table 56. Page 74.

Comment 211: I have asthma, thanks to years of living in a polluted city. anything that will reduce the pollution will help me but also millions of other New Yorkers, young and old.

Commenter 2736.

Comment 212: We all need clean air. NYC, especially the Bronx , is our country's epicenter for Asthma. We all know why. Let's clean our air. Commenter 2800.

Comment 213: Vehicular exhaust, esp. from diesel motors & 2-cycle gasoline motors, is a leading contributor to urban air pollution -- in turn a leading cause of human-induced, preventable premature mortality. Please support this important program. Commenter 2830.

Comment 214: Many children here in Brooklyn have asthma or are in danger of having it. They must have clean air to survive! Commenter 2894.

Comment 215: Clean air saves children's lives. I've worked in neighborhoods with high air pollution and high childhood asthma rates. We need clean air for our children's sake as well as our own. Commenter 2983.

Comment 216: Even small towns like the one where I work have problems with tailpaibe (sic) emissions. When I walk to work, there is the stink of exhaust almost every day, and it stays in the air for a long time because of the topography of the region. It's not just big city dwellers that

need relief - it's all of us, and most especially, our planet - our home. We need to adopt the Advanced Clean Cars Program now. Please help us. Commenter 2987.

Comment 217: My mother, born and raised in Southern California, died of pulmonary fibrosis when she was 75. She was told by her doctors that the extreme air pollution from the burning of oil for energy contributed to her illness and hastened her death. Similar disease has happened to hundreds of thousands of people. Zero emission vehicles can help reduce our current dependence on fossil fuels, and will help millions live longer and healthier lives. Commenter 3011.

Comment 218: I already have two asthmatics in my household, anyone who has to struggle to breathe (sic) would sign this and if you wdd (sic) as it till (sic) everyone is struggling to breathe, it will be too late. Commenter 3060.

Comment 219: As someone who has asthma I know what it is like for our children in low-income communities to suffer from asthma caused by exhaust from fossil fuels. Now is the time to put a stop and give our children a chance to breathe cleaner air. Commenter 3099.

Comment 220: I too am a medical professional, clean air & a clean environment lead to healthier communities. Commenter 3148.

Comment 221: Can't do this too soon, to help prevent more lung disease and lung conditions caused by the output of gasoline-based cars. Commenter 3149.

Comment 222: I'm tired of coughing or feeling nauseous from breathing exhaust fumes every time I leave my house and have to drive somewhere. I'd like to be able to breathe normally without getting sick! Commuting on the highways is the worst, but even locally I have that problem with cars, pickup trucks, or regular trucks with heavy exhaust fumes. Commenter 3313.

Comment 223: As a physician, reducing emissions from vehicles is a major concern, as it is a modifiable risk factor for many diseases, including coronary artery disease, COPD, and particulate emissions appear to be a risk factor for dementia. Commenter 3759.

Comment 224: South Bronx residents, who live near several major (sic) highways for decades, directly suffer from vehicle emissions. Zero emissions are a priority for our lives. Commenter 3811.

Comment 225: Cutting tailpipe pollution is a critical step in mitigating impacts on climate change and human health. Commenter 3964.

Comment 226: In the long run, this is becoming a life and death. Millions or billions will be saved in State aid for victims of cardiovascular illness and drastic global climate change will be abated to a significant degree. Commenter 3986.

Comment 227: Tailpipe emissions are responsible for way too many illnesses. It's got to stop now. Commenter 4000.

Comment 228: We in the South Bronx live near several highways, each one contributing to our high asthma rates. Moving to efficient clean cars will cut that pollution and better our health. Commenter 4156.

Comment 229: I already see so much asthma and pollution in my community, we need to do everything we can to protect air quality. Commenter 4306.

Response to Comments 210-229: The Department thanks you for your comments. Pollution from on-road motor vehicles has severe, adverse impacts on human health and the environment. The ACC II regulation will significantly reduce harmful criteria and greenhouse gas emissions from the transportation sector, especially in disadvantaged communities that historically bore a disproportionate burden.

Comment 230: New York greenhouse gas emissions are less than one half percent of global emissions per year but global greenhouse gas emissions have been increasing by more than one half percent per year on average since 1993. Anything New York State does to reduce GHG emissions will be supplanted by emissions elsewhere in less than a year. That does not mean we should not do something but it does mean that we can take the time to do it right. Doing it right means doing the feasibility, affordability, and environmental impact analyses that the State has not done to date. Commenter 2573.

Comment 231: I did not spend sufficient time to develop comments on the California analysis but given the record of the state's response to my comments it would only have been a waste of time. The lack of a feasibility analysis of reliability, affordability, and environmental impacts in general and on-street charging infrastructure and the life-cycle of the proposed amendment, in particular, is sufficient reason to delay this amendment until those analyses have been completed. Commenter 2573.

Response to Comments 230-231: On-road mobile sources are currently the second largest source of greenhouse gases in New York State when calculated using the requirements of New York's CLCPA. The Department disagrees with the assertion that a reasoned analysis of the benefits and costs of the ACC II regulation was not conducted as part of this rulemaking. As set forth in the RIS, ACC II will have significant emissions reductions and health benefits. See also Response to Comment 198-209.

Comment 232: The rationale for this action is that “zero-emissions” vehicles in New York are good for the planet. However, the proposed amendment simply exports the emissions elsewhere. Commenter 2573.

Response to Comment 232: The ACC II regulation also incorporates revised low emission vehicle (LEV IV) standards for ICEVs in addition to revised ZEV requirements. LEV IV will implement more stringent standards for criteria pollutants, which contribute to ground-level ozone formation at a local level. The impact of the regulation outside of New York State are beyond the scope of this rulemaking. However, regions downwind from New York State will benefit from reduced emissions in New York State.

Comment 233: Adoption of California’s Advanced Clean Cars II rule is both mandated by statute and incorporated as a key strategy in the Climate Action Council’s final Scoping Plan, approved in December 2022. In 2021, New York adopted legislation committing the State to a goal of 100 percent of new passenger cars and trucks offered for sale or lease to be zero emissions by 2035. The legislation directs DEC to develop and propose “[p]assenger vehicle and truck regulations requiring increasing volumes of new zero emissions vehicles offered for sale or lease” toward the 100 percent by 2035 target—precisely what ACCII accomplishes. The Climate Action Council made this connection explicit in its final Scoping Plan, identifying ACCII as an example of regulations DEC could adopt to fulfill its obligations pursuant to E.C.L. § 19-0306-B and recommending that “DEC should adopt the Advanced Clean Cars 2 regulation.” Indeed, achieving the State’s ambitious zero emission vehicle commitments in the 2021 legislation

would be impossible absent adoption of California’s ACCII, as New York is precluded under the Clean Air Act from developing emission standards for new vehicles unless those standards are identical to those already adopted by California. Commenter 2617.

Comment 234: Aggressively transitioning the transportation sector to zero-emissions is a pillar of the state’s recently-finalized Climate Scoping Plan, which found that the sector would have to “shift nearly completely to ZEVs.” It is also the only available means of implementing legislation signed by Governor Hochul in 2021, which established a goal for all new LDVs sold in the State to be zero-emissions by 2035 and directs the Department of Environmental Conservation to adopt ZEV sales mandates towards that goal. Though it is not named explicitly in the legislation, ACCII is the only policy tool available to effectuate that provision.

There are nearly 10 million LDVs in New York today, representing by far the largest chunk of transportation’s overall greenhouse gas emissions. Adopting ACCII and other sales mandates was rightfully identified by the Climate Action Council as a foundational element of the Final Scoping Plan (“FSP”), and the key to achieving the steep emission reductions required of the transportation sector.

In fact, all CLCPA-compliant scenarios depend on New York State achieving 100% ZEV sales for new LDVs by 2035, and at least 90% by 2030. In terms of vehicles on the road, at least 21% of LDVs must be zero-emissions by 2030. Compared to the business as usual policy case, which

would result in just over 30% new ZEV sales and 10% ZEV stock share by 2030, the need for Advanced Clean Cars II is unmistakable.

The State's modeling bears this out. Without Advanced Clean Cars II, transportation sector emissions in 2050 are only marginally lower than in 2020; with ACCII, emissions are slashed by almost one-third.

Currently, New York State ranks in the middle of the pack in terms of LDV ZEV adoption. The FSP finds that the number of ZEVs on the road will have to increase exponentially, from roughly 80,000 in 2021 to 2.7–3.4 million in 2030, and 10.0–10.1 million in 2050. In other words, the number of zero-emission LDVs on the road will have to increase by up to 43 times by the end of the decade.

While there are numerous policies that can and should be implemented to catalyze this rapid uptick in ZEV adoption, the lion's share of emission reductions will come from ACCII – with all other policies hinging on its immediate implementation. Commenter 2617.

Comment 235: The state's Climate Law requires New York to move aggressively. The Climate Action Council has recognized the Advanced Clean Cars rule as a key component to helping to meet the emissions reduction mandates in the Climate Leadership Community Protection Act. Moreover, the Climate Law requires, when agencies are making decisions to consider the

decision's impact on not only the climate greenhouse gas reduction goals, but also potential impacts on environmental justice communities. Commenter 4433.

Comment 236: So right now, New York ranks in the middle of the pack in terms of zero-emission vehicle adoption. These adoption rates will have to rise exponentially and there is simply no feasible way to accomplish that without ACC II. Commenter 4436.

Response to Comments 233-236: The modeling scenarios and ZEV sales projections used in the scoping plan are beyond the scope of this rulemaking. However, the Department notes that the annual ZEV sales requirement for 2035 aligns with the legislative sales goal of 100% light-duty vehicles set forth in Chapter 423 of the Laws of 2021. The Department agrees that New York's ZEV adoption rate lags behind many states. However, ZEV sales have increased dramatically over the past two years and currently exceed 6.5% of all new vehicle sales in New York State. See also Response to Comment 171-177.

Comment 237: NYSDEC's analysis of criteria pollutants in the Regulatory Impact Statement is facially deficient.

NYSDEC first presents a table purporting to show "California Statewide ACC II Upstream Emissions Relative To Baseline" for each calendar from 2026 through 2040 for the criteria pollutants NO_x and PM_{2.5}. Although NYSDEC does not specify this on the table itself, its

discussion elsewhere in the Statement suggests that these figures are a result of California's use of "CARB's EMFAC2021 and Vision models." These tables appear to show a reduction of 0.07 tons per day of NOx emissions in 2026, increasing to 6.62 tons per day in 2040, and a reduction of zero tons per day of PM2.5 emissions in 2026, increasing to 0.92 tons per day in 2040.

Another table purports to show the same range of figures (again, for California) "includ[ing] vehicle, fuel production, and fuel delivery emissions." These figures are higher than the ones in the previous table: NOx reductions of 0.59 tons per day in 2026, rising to 27.96 tons per day in 2040, and PM2.5 reductions of 0.03 tons per day in 2026, rising to 1.39 tons per day in 2040.

A third table, finally, purports to show California's "Statewide Wells-to-Wheels Emission Benefits" from ACC II.88 These figures are, again, for the most part higher than the previous tables: NOx reductions of 0.7 tons per day in 2026, rising to 34.6 tons per day in 2040, and PM2.5 reductions of 0.0 tons per day in 2026, rising to 2.3 tons per day in 2040.

NYSDEC offers no narrative discussion of these values, and no explanation of the tables' origins beyond the reference to "CARB's EMFAC2021 and Vision models" mentioned above.

NYSDEC describes "EMFAC2021" only as "a California-specific emissions model," and the "Vision" model as being "used to estimate upstream emissions from transportation fuel and electric power industries." Both statements are supported only by footnotes to the general landing page for the respective models, providing the public no way to assess whether these tables actually represent a valid LCA or to interrogate the assumptions and inputs used.

In any event, these California tables are irrelevant to analyzing the effects of adopting ACC II on criteria pollutant emissions in New York. Without conducting a thorough and transparent LCA NYSDEC cannot demonstrate the true impact of adopting ACC II on criteria emissions in New York. This is particularly the case in light of differences between the two states' electric grids, a fundamental difference affecting emissions impacts which NYSDEC should have explicitly accounted for and analyzed. Instead, NYSDEC does exactly the opposite. As discussed in more detail in Section C.4 below, it assumes without analysis or accounting for costs that New York will have an entirely renewable-powered grid by 2040, and apparently views this assumption as relieving it from any obligation to meaningfully analyze the criteria pollutant emissions resulting from the impact of EV mandates on its actually existing grid. Indeed, as threadbare as is the California analysis that NYSDEC presents, its New York analysis manages to be even more deficient.

First, NYSDEC informs the reader that “New York State emission benefits and WTW [well-to-wheels] benefits resulting from proposed adoption of ACC II are based on ICCT MOVES3 modeling.” But whereas NYSDEC supported its reference to California’s models with at least a footnote to websites discussing those models generally, here for its own model, its footnote reads only “Add footnote[.]” The reader is left completely in the dark as to how NYSDEC derived the tables purporting to show New York emission benefits.

Those tables are two. First, a table purports to show “New York Annual ACC II Benefits Compared to Business-as-Usual Scenario,” in a similar format to the prior tables for California. These tables appear to show a reduction of 0.13 tons per day of NOx emissions in 2026, increasing to 4.31 tons per day in 2040, and a reduction of 0.01 tons per day of PM2.5 emissions in 2026, increasing to 0.41 tons per day in 2040.

Second, a table purports to show “Cumulative ACC II Emissions Benefits Compared to Business-as-Usual Scenario, 2025-2040 (NYS Model Year 2026 Implementation).” This table indicates for NOx 1,065 tons of emissions reduced by 2030; 4,25 tons by 2035; and 11,594 tons by 2040; for PM2.5, the table indicates 87 tons by 2030; 445 tons by 2035; and 1,153 tons by 2040. (These numbers differ from the numbers presented in the Regulatory Impact Statement Summary and the New York State Register notice, as explained below.) Notably, this appears to reflect a cost of more than one million dollars per ton of NOx emissions reduced, and ten million dollars per ton of PM2.5 reduced—figures that are orders of magnitude what the federal EPA generally considers “cost-effective” emissions reductions.

The Regulatory Impact Statement’s presentation raises multiple unanswered questions regarding this information. Does NYSDEC mean to imply a difference between the New York tables and California tables because the former are “Compared to Business-as-Usual Scenario” whereas the latter are “Relative to Baseline?” And why does NYSDEC refer to “New York state emission benefits and WTW benefits”—the latter term implying something considering more than merely direct, tailpipe emissions—when neither of the New York emissions tables use the acronym

“WTW” or otherwise indicate consideration of emissions other than from the tailpipe? This inscrutable presentation prevents informed comment.

The benefits claim presented in NYSDEC’s proposal in the New York State Register reads as follows:

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 NOx, 1,373 tons of PM2.5, and 190 million metric tons of carbon dioxide equivalent.

These claims lack citation. They appear to be taken verbatim from NYSDEC’s Regulatory Impact Statement Summary document. These numbers are found nowhere in the Regulatory Impact Statement itself, nor in any of the other documents bundled together with it on NYSDEC’s website. And they differ, with no explanation, from the figures presented in the tables in the Statement, as set forth above. It is impossible to provide informed comment on these issues of central relevance to this rulemaking.

In addition, EVs also result in a significant increase in tire wear and associated particulate matter emissions in the areas where they operate. Neither California nor New York has evaluated these emissions.

Torque loads on drive tires will increase not only thanks to the higher output of electric motors compared to internal combustion engines, but also because regenerative braking will impart torsional forces on tires in the opposite direction. This will affect tire tread wear as well as sidewalls. And it will be more of a consideration in high stop-and-go applications — the exact type of local delivery operations that many see as one of the best applications for electric vehicles. “Higher torque on the drive axle will result in higher wear rate,” says Hinnerk Kaiser, Continental’s head of product development. “In addition, a higher share of braking torque can increase the risk of irregular wear phenomena — heel and toe wear.”

On the crucial question of what emissions benefits will result in New York from its proposed adoption of ACC II, NYSDEC has presented confusing and conflicting figures with no support. Even under the most lenient standard, this violates principles of notice, transparency, and rationality. Commenter 4426-4427.

Response to Comment 237: Emissions benefits of ACC II adoption in New York were analyzed using two methods as mentioned in the RIS. One method utilized a scaling factor to scale California’s estimated emissions benefits and the second method utilized NESCAUM sponsored ICCT emissions modeling. The commenter is correct in stating that the footnote was missing that would have directed readers to the ICCT modeling results on the Department’s public website. The footnote has been updated and included in the revised RIS. The modeling has also been updated and the most recent version is located on the public website at

<https://www.dec.ny.gov/chemical/8394.html> under “Research Publications and Technical Papers”.

The Department disagrees with commenter’s assertion that electric vehicles will have inherently higher fine particulate matter (PM_{2.5}) emissions than ICEVs. Tire PM is an issue with all vehicles regardless of vehicle weight or propulsion system. The Department also disagrees with the assumption that PM_{2.5} emissions will automatically increase due to adoption of ACC II and the increasing percentage of electric vehicles in use. Some electric vehicle components, such as battery packs, may be heavier than ICEV components, but OEMs may offset this increased weight by reducing the weight of other components or the vehicle body. OEMs may also opt to reduce tire wear, and associated PM, by utilizing increased regenerative braking and improved tire designs.

Comment 238: NYSDEC’s GHG emissions analysis suffers from the flaws discussed above with respect to its criteria pollutant analysis, as much of the GHG analysis is presented in the same run of tables as the criteria-pollutant analysis, subject to the same unsourced, unexplained, or confusing presentation. Fundamentally, without a thorough and transparently presented LCA, NYSDEC has no way of knowing the true GHG impact of adopting ACC II—and certainly has not presented sufficient analysis for informed public comment.

The GHG analysis contains additional flaws. First, NYSDEC concedes that “[a]doption of ACC II would reduce on-road emissions, but would increase electric generation emissions.” But,

without any analysis, NYSDEC asserts: “New York expects to have a carbon-neutral electric grid powered by renewable sources by 2040 to comply with the CLCPA requirements.” (Strangely, NYSDEC appears to include this assumption into its calculation of environmental benefits, while not accounting for the enormous costs that this grid transformation will most certainly entail.) NYSDEC does not cite any specific provision of the CLCPA, nor does it provide any analysis of the anticipated timeline and scale or costs for its “expect[ation]” that New York will “have a carbon-neutral grid” by 2040. Nor does it address the impact on its projections for the feasibility of a transition to an all-EV new-car fleet five years before that date, the impact of an aggressive EV mandate that actually starts in 2026, and on associated GHG emissions. Nor does NYSDEC discuss the recent closure of the Indian Point nuclear power facility in New York, and the consequent increased reliance on fossil fuels that calls into question both NYSDEC’s “expect[ation]” and the assumptions underlying the adoption of the CLCPA in 2019. NYSDEC also omits analysis of the needs for battery production and replacement, and resulting carbon emissions. Battery manufacturing in China and other foreign nations, as well as associated global mining activity, are carbon-intensive activities that NYSDEC’s analysis completely omits. This failure to conduct a true LCA again places a “thumb on the scale,” obscuring the true impact of adopting ACC II.

For its monetization of projected health benefits from GHG emission reductions, NYSDEC says it used “COBRA” modeling, “based on ICCT MOVES3 modeling of ACC II in New York State.” (NYSDEC does not specify whether its monetization of projected health benefits from GHG reductions also includes criteria pollutants.) The link that it provides to this modeling does not work. And NYSDEC’s representation of its claims in table form is puzzling: It only presents

monetized benefits for 2040, not any intervening year. Moreover, in 2040, notwithstanding a tremendous, forced increase in electricity demand, NYSDEC unrealistically projects zero burden from “increased electric generation emissions.” Although NYSDEC’s main narrative acknowledges “increase[d] electric generation emissions,” its table does not appear to assign any cost to those emissions.

Nor does NYSDEC analyze the potential impact on fleet turnover from mandates that increase vehicle cost. This could perversely slow adoption of emission-reducing technology. Vehicle consumers likely prefer to have a full range of choices available, not to have EVs mandated, and that they do not support EV subsidies that distort the market. Without accounting for these market dynamics, NYSDEC cannot meaningfully predict the actual emissions impact of its adoption of ACC II. Commenter 4426-4427.

Response to Comment 238: The CLCPA requirements not discussed in the RIS and associated modeling for grid carbon neutrality are beyond the scope of this rulemaking. Electric generation and battery mineral mining are also beyond the scope of this rulemaking. However, the Department notes that the federal Infrastructure Investment and Jobs Act (IIJA) adopted in 2021 included more than \$7 billion to strengthen U.S. EV battery supply chains with \$400 million allocated to grants to develop domestic rare-earth minerals. Also, the federal Inflation Reduction Act (IRA) adopted in 2022 provides EV rebates if a required percentage of batteries or battery minerals are sourced domestically or from U.S. free-trade countries.²¹ The ICCT modeling in the

²¹ Automotive News. January 23, 2023. Page 47.

ACC II rule estimated emissions from the New York’s electric grid using the GREET model. These assumptions include a carbon neutral grid by 2040 to account for CLCPA requirements. The ICCT COBRA modeling was for ACC II, which includes the LEV IV criteria emission standards in addition to the ZEV standards.

The ACC II ZEV standards are an OEM sales requirement and do not force consumers to purchase a product. ICEVs that meet the ACC II LEV IV standards will be available until model year 2035. Consumers will have a choice of ICEVs, ZEVs, or PHEVs that suit their needs. EV purchase incentives, except for voluntary EJ value programs, are beyond the scope of this rulemaking.

Vehicle purchase cost increases annually for several reasons. While emissions regulations may lead to a part of this increase, they are far from the only cause. Fuel economy regulations, safety regulations, and OEMs increasing the size and offering increased vehicle infotainment options also increase vehicle cost. Additional factors leading to increased vehicle cost include supply chain issues, parts shortages, inflation, and high interest rates. One factor driving increase EV sales is high gasoline prices. An increasing number of consumers are opting for PHEVs and EVs to escape the pain at the pump caused by higher fuel prices since 2021.

Legal and Procedural Issues

Comment 239: NYSDEC’s notice asserts that adoption of ACC II is “consistent with the requirements of New York’s Climate Leadership and Community Protection Act,” which

“established GHG reduction requirements and other climate policy goals. . . . [T]he CLCPA includes numerous requirements regarding the reduction of GHGs, and [adoption of ACC II] will further reduce GHGs from motor vehicles in the State.”

But NYSDEC’s analysis does not demonstrate that adopting ACC II would, in fact, align with the CLCPA’s goals. The CLCPA requires statewide reductions of GHG emissions. NYSDEC’s Regulatory Impact Statement acknowledges this fact as a general matter, yet fails to consider whether ACC II will in fact reduce New York State’s overall GHG emissions profile, or whether there are more effective or less costly alternative means of doing so.

As we explain in these comments and in our attached comments on CARB’s ACC II proposal, in the absence of a lifecycle GHG emissions analysis, neither CARB nor NYSDEC can demonstrate the statewide GHG impact of ACC II.

Our attached comments on CARB’s ACC II proposal include a study from Ramboll that evaluated whether alternative vehicle technology and fuel pathways could achieve life cycle GHG emission reductions similar or greater than the ACC II proposal. Unlike CARB’s and NYSDEC’s partial analysis, Ramboll evaluated the full life cycle impacts of ZEV technologies under the ACC II proposal to more completely and properly characterize the potential near-term and long-term GHG emissions performance. Ramboll considered other pathways that would not require a replacement of the entire transportation infrastructure system, and that would also not require the wholesale transformation of electric energy production and distribution infrastructure

on an unprecedented short time scale. Instead, these other pathways would allow battery, hydrogen, and low-carbon intensity gaseous and liquid fueled vehicles to compete to achieve California's GHG targets for light-duty transportation in the quickest and most cost-effective manner. Ramboll's conclusions showed that CARB's attributions of GHG reductions to its proposed ACC II regulation were incomplete and emphasized the need for CARB to conduct a full lifecycle GHG emission assessment to quantify the cradle-to-grave effects of the draft ACC II proposal. Ramboll's study shows that a full LCA demonstrates that there are multiple GHG-reducing vehicle/fuel technologies that, individually or in combination, have equivalent GHG reductions as the ZEV-mandated ACC II proposal. CARB did not remedy these inadequacies in its analysis before adopting ACC II, and NYSDEC's own analysis suffers from the same deficiencies.

Even if CARB's analysis included the carbon emissions associated with battery production and had been otherwise adequate (which, as our comments on its proposal demonstrated, it was not), NYSDEC cannot simply rely on CARB. For NYSDEC to conduct an adequate LCA of the effects of adopting ACC II on statewide GHG emissions, it would need to consider factors such as the mix of the fuel base for generation supplied to the grid on which New York's ZEVs will charge, expected miles traveled by New York drivers, New York temperature trends throughout the year and their effect on charging needs and battery capabilities, and many other state-specific factors.

NYSDEC's omission of a LCA is especially troubling in light of the CLCPA's explicit requirement that regulations promulgated to achieve statewide GHG regulations "[i]ncorporate measures to minimize leakage." There is no analysis of the potential for leakage in either NYSDEC's proposal or its Regulatory Impact Statement, let alone any discussion of how to minimize it. Far from NYSDEC demonstrating that its proposed action is aligned with CLCPA's goals, its proposal violates CLCPA's own requirements. Commenter 4426-4427.

Response to Comment 239: A full discussion of the Ramboll Study and lifecycle GHG emissions referenced by the commenter is set forth in CARB's Final Statement of Reasons for Rulemaking, Including Summary of Comments and Agency Response (August 25, 2022), and will not be repeated here.

The term "zero-emission vehicle" refers to harmful tailpipe emissions only, and there are emissions in the manufacturing process for electric vehicles (EVs). However, extensive research has been conducted on the environmental impacts of electric vehicles, and the results are clear: EVs produce far less emissions over their lifecycle than internal combustion engines (ICEVs), even accounting for emissions in the manufacturing stage.

Manufacturing emissions are generally higher for electric vehicles due to the smelting from mining for raw materials, the energy used for constructing batteries, and other reasons. However, studies and modeling show this initial deficit is quickly reversed as vehicles enter operation, or general use. Electric vehicles generate no tailpipe emissions; their only emissions are from the

energy production needed to charge the vehicles, which is dependent on the proportion of fossil fuels in the grid an EV is charging from.

On a low-emissions grid like New York's, ICEVs quickly overtake EVs in terms of lifecycle greenhouse gas emissions. EVs operating in higher-emission grids that rely on coal and natural gas have lower marginal benefits, but still produce fewer emissions than ICEVs over vehicle lifetime.

Article 75 of the New York Environmental Conservation Law (ECL) sets forth the requirements of the Climate Leadership and Community Protection Act (CLCPA) and requires, among other things, a 40 percent reduction in Statewide GHG emissions from 1990 levels by 2030, and an 85 percent reduction from 1990 levels by 2050, and emphasizes the reduction of 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. As stated in the Department's regulatory impact statement (RIS), 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 6 NYCRR Part 496.5. 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. Contrary to commenter's assertions, ACC II will further reduce GHG emissions from the transportation sector and is, therefore, consistent with the CLCPA.

Additionally, ACC II is only one of the several measures being taken by New York State to further reduce statewide GHG emissions. The commenter seems to imply, incorrectly, that the ACC II amendments are intended to wholly satisfy the goals and requirements of the CLCPA. That is simply not the case. As stated in the RIS, the ACC II amendments are consistent with the CLCPA because they will further reduce statewide GHG emissions from motor vehicles. The commenter conflates the CLCPA's requirements with the promulgation of the ACC II regulations. Pursuant to the CLCPA, and section 75-0109 of the ECL, the Department is required to promulgate regulations to achieve the statewide greenhouse gas emissions reductions goals by January 1, 2024. Included within that section, are many other requirements, including the requirement that the Department incorporate measures to minimize leakage. That process is well under way, for example through the development of an economywide cap and invest program. ACC II is a separate and independent rulemaking developed in accordance with section 177 of the Clean Air Act.

Comment 240: In the section of its Regulatory Impact Statement (RIS) addressing "Needs and Benefits," NYSDEC observes that it "is also tasked with mitigating the effects of criteria pollutants." It is not clear what NYSDEC is referring to here. The RIS cites some fifteen state statutory provisions as authority, but none of these appear to refer directly to criteria pollutants. NYSDEC is presumably referring to some combination of general statements of purpose in these state statutes regarding preserving air quality, the federal Clean Air Act, and the state's State Implementation Plans approved by EPA pursuant to that Act.

As we explain in the section of these comments addressing NYSDEC's analysis in support of its proposal, and in our attached comments on CARB's proposed adoption of ACC II, without conducting an LCA, NYSDEC cannot demonstrate the overall effect that adoption of ACC II will have on criteria pollutant emissions in New York. NYSDEC therefore has not clearly identified the source and scope of this "task[]," and in any event has not adequately demonstrated that adopting ACC II will further carry it out. And even NYSDEC's own inadequate analysis, as discussed below, appears to show millions of dollars of costs per ton of criteria pollutants reduced—orders of magnitude above what EPA has recognized as cost-effective emissions reduction and an irrational basis for regulation. Commenter 4426-4427.

Response to Comment 240: The statutory authority for the ACC II adoption is clearly stated and defined in the RIS under Section II, labelled "STATUTORY AUTHORITY". The Commissioner of the Department is charged with promoting and protecting the air resources of New York including providing for the prevention and abatement of air pollution pursuant to section 3-0301(1)(b) of the Environmental Conservation Law (ECL). While an emphasis has been placed on the reduction and mitigation of greenhouse gas emissions and climate change in recent years, the Department has always been tasked with reducing and mitigating criteria pollutant emissions. The Department's authority to regulate criteria pollutants under the ECL has not changed.

The Department's analysis and modeling conducted by NESCAUM and ICCT clearly demonstrates that the ACC II regulation will achieve significant reductions of criteria pollutants in New York State in the regulatory timeframe. This analysis estimates that ACC II will reduce

oxides of Nitrogen (NO_x) emissions by approximately 15,231 tons and fine particulate matter (PM_{2.5}) by approximately 1,373 tons by 2040. The Department notes that not a single vehicle manufacturer, which is the regulated entity under the ACC II standards, has questioned the need, benefits, stringency, or feasibility of the ACC II standards in New York State, or any other jurisdiction that has adopted the ACC II standards to date.

Comment 241: NYSDEC cites, as further support for its proposal, state legislation from 2021 that calls for increased ZEV sales in New York, working towards a “goal” of ZEVs making up one hundred percent of new passenger cars and trucks sold or leased in the state by 2035. But this legislative provision does not support NYSDEC’s proposal, as the very next paragraph requires NYSDEC to “develop and propose” ZEV regulations “consistent with federal law.” As these comments explain, adopting ACC II is inconsistent with federal law in at least three independent respects: it is preempted by EPCA and by the RFS, and unless and until EPA grants a Clean Air Act preemption waiver for ACC II, it is also preempted by the Clean Air Act. NYSDEC does not acknowledge this crucial caveat, let alone explain how its proposed adoption of ACC II is “consistent with federal law.” Without doing so, NYSDEC cannot validly support its proposal by reference to this statute. Commenter 4426-4427.

Response to Comment 241: Commenter’s assertions that the ACC II rulemaking is invalid due to federal preemption and California’s lack of an EPA waiver are erroneous. The allegation that ACC II is preempted by the Energy Policy Conservation Act (EPCA) and the Renewable Fuel Standard (RFS) is an oft-repeated, exhausted argument that has been rebutted over the course of

numerous rulemakings. See e.g., 88 Fed.Reg. 20688 (Apr. 6, 2023), 87 Fed.Reg. 14332 (Mar. 14, 2022), 87 Fed.Reg. 25710 (May 2, 2022), and 86 Fed.Reg. 74236 (Dec. 29, 2021). EPCA and the Clean Air Act (CAA) regulate two different subjects, fuel economy and air pollution, respectively, and for two different reasons, reducing energy consumption and protecting the public health and welfare from air pollution. Contrary to the commenter's assertion, the revisions to Part 218 are emissions standards, not fuel economy standards. The ACC II standards establish emission standards for light- and medium-duty vehicles. The Corporate Average Fuel Economy (CAFE) standards promulgated pursuant to EPCA, in contrast, establish a mile per gallon standard fuel economy standard. While regulations enacted pursuant to EPCA and the CAA may overlap, that overlap is not a conflict. In fact, Congress has expressly acknowledged that EPA (and California) are authorized under the CAA to establish motor vehicle emissions standards that may affect fuel economy, but Congress did not limit EPA's authority to set emission standards for that reason. Furthermore, The Department finds no conflict with Congressional renewable fuel goals as the ACC II regulation does not prohibit the manufacture, sale, or use of renewable diesel or ethanol fuels.

California had clear legal authority under Section 209 of the Clean Air Act to adopt the ACC II MHD vehicle standards that were adopted on November 30, 2022. A waiver of preemption is not necessary until California seeks to enforce its standards. Likewise, New York has the legal authority to adopt the ACC II rule under Section 177 of the Clean Air Act. New York is adopting standards identical to those adopted in California and providing the required minimum 2-years lead time. California is required to request a waiver of preemption for its emission standards, but federal law is clear that California is to be granted deference by EPA in its waiver applications

provided its regulations are at least as protective in the aggregate as federal standards. The burden of proof is upon opponents of the waiver to prove that the standards are not as protective in the aggregate as federal standards. EPA routinely agreed that California's standards were at least as protective in the aggregate and approved previous waivers. The ill-considered actions of the Trump Administration and its EPA to ignore established case law and wrongfully revoke a valid waiver was subsequently overturned and the waiver was reinstated to comport with long-established norms. In fact, the U.S. EPA on April 6, 2023, announced its decision to approve CARB's waiver request for its Advance Clean Trucks and other regulations; reaffirming its commitment to a legally sufficient and legitimate standard of review and deference to California's motor vehicle emissions rule. The Department anticipates CARB's ACC II waiver request, when submitted, will be reviewed by EPA and approved under a similar process.

Comment 242: NYSDEC, as an additional reason for proposing to adopt ACC II, cites "maintain[ing] identity with Section 177 of the Clean Air Act." Indeed, NYSDEC says that this supposed "identity" imperative is the "primary basis" why it did not consider retaining its current regulations, which reflect its prior adoption of ACC I.

NYSDEC is misconstruing the Clean Air Act. Section 177 contemplates states adopting California's standards where "such standards are identical to the California standards for which a waiver has been granted." California has apparently not even applied for, let alone obtained, an EPA waiver of Clean Air Act preemption for ACC II. Section 177 on its face therefore provides

no authority for NYSDEC to adopt ACC II, and any such adoption would be preempted by the CAA unless and until EPA grants a preemption waiver for ACC II.

NYSDEC's misunderstanding of CAA § 177 also exposes a fatal flaw in its "alternatives" analysis within its Regulatory Impact Statement. Apart from its misguided reference to CAA § 177 and "identity" with California, NYSDEC's alternatives analysis simply restates that "adoption of ACC II is consistent with Legislative directives to the Department." As we explain in these comments, this is incorrect. NYSDEC has therefore not provided the public with a meaningful consideration of alternatives as required by state law.

NYSDEC's adoption of ACC II would, therefore, violate a separate provision of state law which applies when NYSDEC is "adopting any code, rule or regulation which contains a requirement that is more stringent than the [Clean Air] Act or regulations issued pursuant to the Act by the United States environmental protection agency [sic]." This provision requires NYSDEC to provide "a detailed explanation of the reason or reasons that justify exceeding federal minimum requirements." NYSDEC's confused and conclusory discussion of the possibility of adhering to federal standards does not satisfy this requirement.

NYSDEC says that its "primary basis" for rejecting the alternative of "maintaining the current ACC I program without adopting CARB's ACC II" was that "the Department believes this is not permitted under Section 177 due to the identity requirement."

NYSDEC is incorrect, for three reasons. First, as explained above, CAA § 177, far from requiring NYSDEC to adopt ACC II, in fact does not allow NYSDEC to adopt ACC II unless and until EPA grants a waiver for that program.

Second, ACC II is a California rulemaking establishing additional provisions of California's regulatory code, which are separate code sections for separate model years whose text explicitly provides that they are severable from the remainder of California's car-emissions regulations. NYSDEC identifies no valid reason why it could not retain ACC I without also adopting ACC II, especially since CAA Section 177 allows other states to adopt California's standards if "such standards are identical to the California standards for which a waiver has been granted for such model year."

Third, NYSDEC could have repealed its existing regulatory requirements resulting from its prior adoption of ACC I, resulting in harmony with existing federal standards. CAA § 177 allows states to adopt California's standards under certain circumstances but does not require them to do so. NYSDEC did not consider this course of action (harmonizing with federal standards) as part of its alternatives analysis, further undermining that analysis. Indeed, as shown below, NY has sound environmental, economic, and social reasons to not adopt ACC II.

In short, not only does CAA § 177 fail to support NYSDEC's proposed adoption of ACC II, but the federal statutory provision in fact preempts adoption at this stage. Commenter 4426-4427

Response to Comment 242: The Department disagrees with commenter's interpretation of the requirements of Section 177 of the Clean Air Act. New York has adopted California's on-road motor vehicle emissions standards since 1990 to address longstanding air quality issues that cannot be addressed by less stringent and protective federal emission standards. The New York Metropolitan Area (NYMA) was recently reclassified from serious to severe non-attainment. The reclassification occurred even with New York adopting and implementing California's more stringent and protective ACC I standards in one of the most populated and congested areas in the country. Reverting to existing federal standards as proposed by the Commenter would clearly result in worse emissions in the area. The promulgation of ACC II is a critical component for addressing the ongoing air quality issues in the state, especially in the NYMA, and one of the many measures New York State must take to ensure the protection of public health and the environment.

Under Section 177, New York is required to adopt identical standards for a given weight class. Commenter's assertion that New York can "sever" ACC II and revert to ACC I standards is incorrect. ACC I standards cease to exist after model year 2025. If New York does not adopt ACC II standards, the only alternative is to revert to less stringent and protective federal standards. Again, the NYMA was reclassified to severe non-attainment and federal standards

will not achieve the necessary emissions reductions to achieve and maintain attainment with ambient air quality standards.

The commenter is also incorrect about the waiver process and New York's ability to adopt California's motor vehicle standards under section 177 of the Clean Air Act. Section 177 does not preclude section 177 states, such as New York, from adopting California standards prior to those standards receiving an EPA waiver. In fact, the United States District Court held that such an interpretation of the is contrary to the plain language of the Act and would frustrate Congressional intent. See *Motor Vehicle Manufacturers Assoc. et al. v. NYS DEC, et al.*, 810 F. Supp 1331, 1348 (1993). Hence, promulgation of ACC II prior to a grant of waiver by EPA is valid and proper under the Act and New York State law and merely prevents the state from enforcing such provisions until such time as a waiver is granted. New York anticipates and would support California's request for waiver for its ACC II program.

Comment 243: As a threshold matter, the accumulated weight of NYSDEC's unsupported and/or inadequately supported claims, projections, and assumptions in its regulatory analysis documents render its proposed adoption of ACC II arbitrary and capricious. Commenter 4426-4427.

Response to Comment 243: The Department has fully satisfied the requirements of State Administrative Procedures Act (SAPA) and has conducted a well-reasoned and sufficient analysis of the costs and benefits of the proposed adoption, as is required by SAPA. Additional

statutory requirements (CLCPA and Chapter 423 of the Laws of 2021) were also considered. The Department's analysis included California costs that were deemed to be relevant to New York, excluded costs that were deemed not to be applicable in New York, and modified California costs and inputs for New York conditions. Furthermore, the Department's analysis applied New York's social cost of carbon set forth in the Department's Value of Carbon Guidance established under the CLCPA. The Department is granted deference in selecting the methodology and conducting its analysis.

Comment 244: Congress has not authorized federal executive agencies or states to force a transition to EVs through government mandates. Indeed, this is a major policy question that is the subject of several lawsuits pending before the D.C. Circuit. When Congress has spoken on vehicle electrification, it has specifically prohibited EV mandates, required studies, and provided financial incentives with strict eligibility limits based on domestic production requirements and income levels. The decision to force a transition to EVs and ban the sale of ICEVs would constitute a major question of political and economic significance for which Congress must provide a clear statement; no such clear statement exists. Commenter 4426-4427.

Response to Comment 244: The Department disagrees with Commenter's assertion that California and Section 177 States adopting California standards require further authorization from Congress. Congress provided California with clear authority to adopt and enforce ZEV requirements under Section 209 of the Clean Air Act and has likewise given Section 177 states, such as New York, clear authority to adopt California's standards under Section 177 of the Clean

Air Act. New York and other Section 177 states voluntarily opted into the California program. If authorized under the Clean Air Act, other States may also choose whether or not to opt into California's program and are not forced to do so. Additionally, New York will adopt all available legal measures to protect the air quality and the health of its citizens, especially considering inaction at the federal level evidenced by the lack of a comprehensive federal ZEV regulation. The Department notes that the U.S. EPA proposed new federal light-duty emissions standards on April 12, 2023. EPA estimates the regulations would result in approximately 67% of all light-duty vehicle sales to be ZEV by model year 2032²². California's ACC II regulation requires a similar percentage in model year 2030.

Comment 245: NYSDEC lacks authority to adopt or enforce any regulation "related to" fuel-economy standards under the Energy and Policy Conservation Act (EPCA). EPCA's broad preemption provision prevents California and NYSDEC from adopting regulations when they are "related to" fuel economy, regardless of any accompanying localized pollution benefits. This provision is self-executing, meaning that no agency action is necessary for it to be effective—the lack of a NHTSA regulation expressly preempting NYSDEC's adoption of ACC II does not affect EPCA's preemptive effect. This provision also contains no authority to grant a waiver of preemption.

²² Proposed Rule: Multi-Pollutant Emissions Standards for Model Years 2027 and Later Light-Duty and Medium-Duty Vehicles, See: <https://www.epa.gov/regulations-emissions-vehicles-and-engines/proposed-rule-multi-pollutant-emissions-standards-model>

ACC II is clearly related to fuel-economy standards. Courts have found that state regulations “relate to” federal matters when they have a “connection with” or contain a “reference to” these matters. NYSDEC’s Regulatory Impact Statement specifically discusses the fuel savings that its projects will result from this rulemaking. NYSDEC cannot avoid EPCA’s preemptive effect by characterizing this rule as an environmental regulation despite its clear implications for fuel economy. Indeed, because emissions of the greenhouse gas carbon dioxide are “essentially constant per gallon combusted of a given type of fuel,” the fuel economy of a vehicle and its carbon-dioxide emissions are two sides of the same coin. Accordingly, “any rule that limits tailpipe [greenhouse gas] emissions is effectively identical to a rule that limits fuel consumption.”

An EV mandate thus has more than a mere “connection with” fuel economy—it has a direct connection, and courts have had little trouble finding federal preemption of state laws promoting hybrid or electric vehicles, including in New York. New York’s adoption of ACC II “relates to” fuel economy even more clearly than the taxi rules at issue in *Metropolitan Taxicab* and is thus expressly preempted by EPCA. Commenter 4426-4427

Comment 246: It is a “well-established principle that the Supremacy Clause, U.S. Const., Art. VI, cl. 2, invalidates state laws,” like ACC II, “that interfere with, or are contrary to federal law.” Even where Congress has not completely displaced state regulation in a specific area, state law is nullified to the extent that it actually conflicts with federal law. Such conflicts arise “when compliance with both state and federal law is impossible” and “when the state law ‘stands as an

obstacle to the accomplishment and execution of the full purposes and objectives of Congress.’”

The ACC II program fails on both counts and is, therefore, expressly and/or impliedly preempted by federal law. Commenter 4426-4427.

Comment 247: NYSDEC’s proposed adoption of ACC II relies on the implicit premises that California has authority to promulgate ACC II. This in turn assumes that ACC II is not preempted by the Clean Air Act, by EPCA, or by the RFS. As we explain elsewhere in these comments, however, ACC II is in fact preempted by EPCA. Commenter 4426-4427.

Response to Comment 245-247: The allegation that ACC II is preempted by the Energy Policy Conservation Act (EPCA) is incorrect. EPCA and the Clean Air Act regulate two different subjects, fuel economy and air pollution, respectively, and for two different reasons, reducing energy consumption and protecting the public health and welfare from air pollution. Contrary to the Commenter’s assertion, the revisions to Part 218 are emissions standards, not fuel economy standards. The ACC II standards establish emission standards for light- and medium-duty vehicles. The Corporate Average Fuel Economy (CAFE) standards promulgated pursuant to EPCA, in contrast, establish a mile per gallon standard fuel economy standard. While regulations enacted pursuant to EPCA and the CAA may overlap, that overlap is not a conflict. In fact, Congress has expressly acknowledged that EPA (and California) are authorized under the CAA to establish motor vehicle emissions standards that may affect fuel economy, but Congress did not limit EPA’s authority to set emission standards for that reason.

Comment 248: A critical failing of ACC II is that in its haste to phase-out oil and gas production and refinery industries it does not consider the impact to the remainder of our energy system.

ACC II will sharply curtail, if not eliminate, the demand for biofuels, and will overburden electricity supply. Nor did NYSDEC consider the impact to other essential products such as jet fuel, asphalt, sulfur, petrochemicals, and lubricants. This willful blindness places ACC II on a collision course with multiple Congressionally mandated programs expressly designed to have the opposite impact: Congress wants to increase biofuels production and ensure a reliable electricity supply. Because ACC II undermines and conflicts with the fulfillment of these Congressional objectives, it is necessarily preempted.

First, Congress' intention to increase production, distribution, and use of biofuels is expressed in no less than three statutes, which do everything from mandating biofuel blending in liquid fuel to incentivizing its production through loans and loan guarantees. EPCA includes provisions related to the integration of alternative fuels in the transportation sector and requires a "reasonable distribution" of the burden of any energy-use restrictions. The Federal Power Act provides for investment in alternative fuels through grant programs and loan guarantees. And the Energy Independence and Security Act (EISA) includes specific provisions to increase energy security through increased production of biofuels under the RFS program and requires blending of increasing volumes of biofuel and other renewable fuels. Specifically, the ACC II Program conflicts with these federal objectives and deprives federal funding programs of value by mandating complete electrification of the transportation sector. These programs set aside significant funding for the development and use of liquid fuels for transportation, with the

expectation that these fuels will continue to play an important role in meeting transportation energy demand for many years.

By contrast, ACC II would eliminate any role for these alternative fuels for new vehicles in New York by requiring 100% ZEVs and PHEVs (Plug-in Hybrid Electric Vehicles) by 2035, removing a substantial portion of the demand for these fuels and depriving federal investments of significant value. This deprivation is made worse by the potential—indeed California’s expectation, which NYSDEC’s proposal has now confirmed—that other states may adopt California’s engine and motor vehicle emission standards under Section 177 of the Clean Air Act, 42 U.S.C. § 7507 and the potential that manufacturers are unlikely to produce two separate fleets (177 states vs. the rest of the country).

Further, ACC II expressly contradicts EPCA’s requirement that any burdens stemming from energy-use restrictions be reasonably distributed across all industry sectors, instead placing the entirety of the burden of these restrictions on the oil and gas production and refinery sectors of New York’s economy as NYSDEC has now proposed to do.

Because NYSDEC’s proposed adoption of ACC II conflicts with and presents an obstacle to clearly stated federal objectives, NYSDEC lack the authority to promulgate these regulations—and indeed is preempted from doing so. Commenter 4426-4427.

Response to Comment 248: The ACC II regulation establishes ZEV sales requirements and LEV IV emission standards for new, light-duty and medium-duty vehicles starting in model year 2026. It does not ban the production, transportation, sale, or use of petroleum or biofuel products. They may continue to be used after 2035 for in-use vehicles. ACC II does not regulate the use of biofuels in any other vehicle segment. There is no petroleum refining in New York State and limited natural gas and biofuel production.²³

The commenter states that New York and other states will adopt California standards under Section 177 of the Clean Air Act and will exacerbate the alleged issue with biofuel production as vehicle manufacturers will not produce two sets of vehicles certified to two different standards, California and EPA. New York first adopted California on-road motor vehicle standards in 1990. At least 16 other states have adopted, or intend to adopt, California's standards.²⁴ The 18 states in total represent approximately 40% of the new vehicle market. Vehicle manufacturers have produced vehicles certified to two standards since California enacted its standards in the 1960s. Today, all new light-duty vehicles sold in the United States are certified for 50-state sales.

Comment 249: And litigation pending before the D.C. Circuit challenges the constitutionality of the Clean Air Act preemption-waiver mechanism as a whole, as well as its specific application in the case of California's GHG regulations.

²³<https://www.eia.gov/state/?sid=NY#tabs-3>

²⁴

https://ww2.arb.ca.gov/sites/default/files/2022-05/%C2%A7177_states_05132022_NADA_sales_r2_ac.pdf

Briefing in the D.C. Circuit on this matter is ongoing, and it will be argued this Fall, with resolution by the Circuit expected in 2024. Separate and apart from all other issues raised in these comments, NYSDEC at a minimum should wait until the federal judiciary has decided these disputed issues before adopting ACC II. To rush forward with adoption now risks considerable disruption and whipsawing of regulated parties' and other stakeholders' expectations and investments, as well as wasted NYSDEC resources. Commenter 4426-4427.

Response to Comment 249: There is no pending litigation that prevents New York from adopting ACC II under Section 177 of the Clean Air Act. New York has the authority to adopt the ACC II regulations and may enforce the rule once California has obtained a waiver of preemption from the EPA. California is required to request a waiver of preemption for its emission standards, but federal law is clear that California is to be granted deference by EPA in its waiver applications provided its regulations are at least as protective in the aggregate as federal standards. The burden of proof is upon opponents of the waiver to prove that the standards are not as protective in the aggregate as federal standards. EPA has routinely agreed that California's standards were at least as protective in the aggregate and approved previous waivers. The ill-considered actions of the Trump Administration and its EPA to ignore established case law and wrongly revoke a valid waiver was subsequently overturned and the waiver was reinstated to comport with the Clean Air Act and long-established norms.

Comment 250: NYSDEC's plan to eventually phase out the sales of all ICEVs constitutes a regulatory taking. In determining whether a regulatory taking has occurred, "[s]everal factors are particularly relevant, including the regulation's economic effect on the landowner, the extent to which the regulation interferes with reasonable investment-backed expectations, and the character of the government action."

AFPM members have invested substantial amounts of money in making their refineries, terminals and distribution networks and renewable fuel facilities safe and productive and, therefore, have significant investment-backed expectations with respect to their properties, at least some of which may be forced to close as a result of NYSDEC's proposed adoption of CARB's electric vehicle mandate. New York landowners also would be harmed. Landowners across the state receive royalties from renting their land to companies. Policies that shut down oil facilities would prevent companies and New York landowners from realizing these investment-backed expectations. Thus, such adoption would constitute a regulatory taking based on its substantial interference with these expectations, and the state would be obligated to provide just compensation for companies' losses.

Therefore, as NYSDEC considers the potential costs of policies that would shut down oil facilities, it should—at a minimum—account for the estimated costs of just compensation for the loss of property use and interference with investment-backed expectations that would inevitably result. Commenter 4426-4427.

Response to Comment 250: The ACC II regulation does not prohibit the production, transport, or sale of petroleum products. It also does not force any business to cease operation or sell property. ACC II only regulates new light- and medium-duty vehicles. While ACC II would prohibit the sale of new ICEVs starting in model year 2035, ICEVs are expected to remain in-use in New York State through at least 2050 assuming a useful life of 15 years. These vehicles would still require fuel and the associated dispensing, transportation, and refining infrastructure. There is also no petroleum refining that occurs in New York State²⁵ and there are approximately 56 active petroleum terminals as of November 30, 2022.²⁶

Environmental Justice

Comment 251: This is especially true for communities of color – our 2022 report also noted that a person of color in the U.S. is 61 percent more likely to live in a community with a failing air pollution grade and over 3 times more likely to live in a community with the worst air quality.

Therefore, New York’s transition to zero-emission transportation is necessary to provide critical health benefits to all residents, but especially to communities of color and lower-income residents who are more vulnerable. Commenter 1978.

Comment 252: We also encourage a greater emphasis on complementary policies to ensure the broader, and more equitable distribution of the benefits of this transition to zero-emissions,

²⁵https://www.eia.gov/dnav/pet/PET_PNP_CAP1_DCU_SNY_A.htm

²⁶<https://www.irs.gov/pub/irs-utl/tcn-db.pdf>

including targeted incentives, charging infrastructure and other equity-centered interventions.
Commenter 1978.

Comment 253: Environmental justice is social justice! Requiring a needed shift to a sustainable transportation method impacts us all particularly our underrepresented populations. Commenter 3898.

Comment 254: The FSP underscores the equity considerations that need to be accounted for in developing ZEV regulations. Specifically, residents of DACs and other low-income New Yorkers are less likely to benefit from the transition to zero-emission passenger vehicles unless the industry rolls out more affordable models and/or the market for used ZEVs becomes mature.

The Department should immediately begin developing and implementing programs that will be eligible for EJ credits under the ACC II Rule, while also continuing to develop and fund complementary policies and programs that will increase access to clean, zero-emission vehicle transportation in New York – including e-mobility, walkable/bikeable communities, and zero-emission transit options.

The ACC II standards include a flexibility for additional “vehicle values” for increasing the number of ZEVs in DACs and providing lower priced ZEVs. These environmental (EJ) credits provide manufacturers an incentive to voluntarily increase the number of low MSRP vehicles

available, the number of EVs in community car share programs, and the number of EVs coming off lease and going to a disadvantaged community member. While these credit options are voluntary for automakers, to work towards an equitable transition to clean transportation, New York should ensure that programs that qualify for the EJ credits are in place. It is vital that New York work with environmental justice and community partners to develop and implement programs that are eligible to participate in the Environmental Justice flexibilities, while also developing complementary policies that ensure communities historically overburdened with transportation pollution realize the benefits of zero-emission transportation.

There is a short time frame for states to be able to develop these EJ programs, as automakers can start earning the credits in MY 2024. However, ensuring that all New Yorkers, including historically overburdened and low-income communities with transportation pollution, have access to zero-emission vehicles is crucial. Therefore, New York should commit to immediately beginning work and engagement with community members and environmental justice organizations to develop and implement EJ programs that will be eligible for these programs.

Recent grants from NYSERDA offer a starting point, and should be expanded, such as the Local Initiatives Support Corporation's proposal, which will deploy electric carshare and mobility as a service solutions in Buffalo, with a focus on disadvantaged communities. A similar program has been unveiled in Albany by CDTA. The transition to zero-emission transportation should be seen as an opportunity to bring new, pollution-free mobility opportunities to transportation

disadvantaged communities and communities of color throughout New York State, and the Department has a role to play in fostering and funding such initiatives.

Further, as there are only limited EJ provisions in the ACC II regulation, New York – as part of its engagement with community members and environmental justice organizations – must continue to develop and fund complementary policies and programs that will ensure the benefits of a transition to zero-emission vehicles are realized by all New Yorkers, especially those who have been historically overburdened with transportation pollution. Commenter 2617.

Comment 255: This local air pollution is also not distributed evenly. Communities of color in New York breathe on average nearly seventy percent more pollution from vehicles than do white residents. ACC II is one way to begin to disrupt this vast inequity, but more work will need to be done to target specific areas. We encourage D.E.C. along with other state decision-makers to consider strong additional policies that do target hotspots and ensure emissions reductions in overburdened communities within this rule and alongside it. Commenter 4428.

Comment 256: Although air pollution is deadly and impacts us all, it is experienced inequitably. The New York Communities of color are exposed to, on average nearly seventy percent more pollution from vehicles than our white residents. ACC II is one way to reduce this vast inequity, but more work will need to be done to target specific areas. ACC II is one of the most significant

opportunities to address tailpipe emissions and is a policy that will drive electric vehicle adoption across the state.

Implementing an ACC II rule will ensure that car manufacturers accelerate the production of pollution-free cars and place these vehicles in frontline communities is critical to achieving environmental justice. This program will also support the development of a robust used zero-emission vehicle market, which will help to advance equitable access to clean mobility solutions and related emissions reductions in low-income communities. Commenter 4432.

Comment 257: This is especially important for those most impacted by transportation pollution, who we know are often low-income communities and people of color. Commenter 4435.

Comment 258: And then finally, we also encourage a greater emphasis on complimentary policies to ensure broader and more equitable distribution of the benefits of this transition to zero-emission technologies. This can be including -- you know, targeted incentives for low-income residents, charging infrastructure that's widely accessible in urban and more rural communities, and other equity-centered interventions. Certainly, within the program, there are options for stronger equity provisions, and we think utilizing those and increasing the options for more equity-centered interventions is critical for eliminating disparities in -- in air pollution burdens. Commenter 4435.

Comment 259: A successful rollout of ACC II will mean that the E.V. adoption will have to spread to communities that has to date not taken part in the transition to electric mobility. So the state must be intentional in rolling out supportive policies to make sure that all New Yorkers can take part in this transition. That means prioritizing and developing a strategy to benefit low-income rural and urban communities who currently have -- are faced with insufficient transportation options. The ACC II rule could provide an opportunity to re-invest in communities that have been systematically de-resourced over the past several decades. Expert incentive and targeted E.V. infrastructure deployment strategy must be rolled out in parallel with ACC II [00:41:40] (sic). Commenter 4436.

Response to Comments 251-259: Complementary programs like installing EV charging infrastructure, new vehicle rebates, and other ancillary programs are beyond the scope of this rulemaking. However, the Department is actively engaged with other state agencies and authorities, as well as stakeholders, to evaluate options related to these concerns. The Department, and New York State government in general, is committed to implementing and ensuring environmental justice for all State residents, particularly residents in disadvantaged and low-income communities that have historically been burdened with higher levels of air pollution.

The ACC II regulation includes three voluntary environmental justice (EJ) value programs for original equipment manufacturers (OEMs) to expand ZEV availability to low income and disadvantaged communities in New York State. These optional EJ value programs include discounted price ZEVs and PHEVs placed in community-based clean mobility programs, used

ZEVs and PHEVs to be re-sold in New York State following the expiration of their lease term, and making new, low-cost ZEVs and PHEVs available to the public in New York State. The community-based clean mobility program will make ZEVs and PHEVs available at a minimum 25% discount off the manufacturer's suggested retail price (MSRP) to eligible community-based organizations. The used ZEV and PHEV program will make used ZEVs and PHEVs available to disadvantaged community members. The low-cost ZEV and PHEV program will make low-cost passenger cars and light-duty trucks available for purchase by New York State residents. Qualifying vehicles will have a MSRP under \$20,275 for passenger cars and under \$26,670 for light-duty trucks. The Department agrees that the timeframe for implementing the voluntary EJ value programs is under an aggressive implementation schedule as values can be earned as early as model year 2024.

Economic Impacts

Comment 260: The creation of new jobs manufacturing electric vehicles. Commenter 8-204, 206-355, 357-422, 424-458, 460, 478, 493-494, 496-497, 926, 1104, 1183-1313, 1315-1317, 1319-1337, 1339-1577, 1579-1671, 1673-1700, 1770, 1941, 1957, 1973, 1976, 1982, 2001, 2042, 2046, 2063, 2067, 2073-2126, 2128-2212, 2214-2248, 2250-2301, 2303-2336, 2338-2345, 2347-2351, 2353-2361, 2363-2375, 2377-2382, 2384-2511, 2513-2530, 2532-2538, 2540-2572, 2574, 2577-2592, 2594-2616, 2618-2620, 4425.

Comment 261: Also it will help create of new jobs manufacturing electric vehicles. Commenter 2211.

Response to Comments 260-261: As stated in the RIS, the ACC II rulemaking is expected to result in increased employment associated with the production, repair, and refueling of electric vehicles. Some of this employment is expected to be new employment opportunities and some is expected to be current employment transitioning from internal combustion engine vehicles to zero emission vehicles. As stated in the regulatory support documents, there is currently little, if any, final vehicle assembly performed in New York State.

Comment 262: For many years, New York State policies have been consistent with California's zero emission standards. The ACC II and Omnibus rules will further stimulate market development and investment in electric vehicles (EVs) and charging infrastructure throughout New York State. This will hasten widespread EV adoption by New Yorkers. Transportation electrification is a critical piece of the overall strategy to transition to this clean energy future. In addition to the CLCPA goals, New York has a target of having 850,000 zero emission vehicles (ZEVs) on the road by 2025 and 2 million by 2030. However, as of January 2023, the state is only 9% of the way to meeting this goal. Commenter 2593.

Comment 263: The current high gas prices and increasingly extreme and volatile weather are all consequences of our over-dependence on oil and gasoline. New York now has the opportunity to adopt a common-sense tool to help our state gain access to more -- and more affordable -- pollution-free, gas-free electric cars. States have a long history of cutting tailpipe pollution by adopting stronger than Federal standards going all the way back to the 1970s and the

implementation of the Clean Air Act. The next opportunity to address our pollution problem and oil addiction is here! We all deserve the option to free ourselves from the gas pump and breathe cleaner air. We cannot delay adopting the Advanced Clean Cars program. Commenter 2621-4424.

Comment 264: The current high gas prices and increasingly extreme and volatile weather are all consequences of our overdependence on oil and gasoline. New York now has the opportunity to adopt a common sense (sic) tool to help our state gain access to more and more affordable pollution-free gas-free electric cars. States have a long history of cutting tailpipe pollution by adopting stronger than federal standards, going all the way back to the 1970s and the implementation of the Clean Air Act.

The next opportunity to address our pollution problem and our oil addiction is here. We all deserve the option to free ourselves from the gas pump and breathe cleaner air. Commenter 4429.

Comment 265: New York, as has been said, has a long history of helping to lead the nation on tail -- tailpipe emission standards and top standards for vehicles. Commenter 4433.

Comment 266: New York has a long history of leadership implementing more health-protective vehicle standards, and the implementation of the ACC II rule will provide much needed emission reductions for healthier air for all residents. Commenter 4435.

Response to Comments 262-266: New York State has a long history dating back to 1990 of adopting California's on-road mobile source emission standards utilizing Section 177 of the Clean Air Act. See also Response to Comment 130-142.

The target of 850,000 ZEVs on the road in New York State by 2035 was a goal linked to the Multi-state Light-Duty ZEV Memorandum of Understanding (MOU). The target was a non-binding goal based on then-available information and assumptions regarding how OEMs may comply with the ZEV regulation. OEMs have produced more EVs with greater range than assumed in New York's original estimate.

Comment 267: This program is a great opportunity to create jobs in NYS. The electric charging stations are needed throughout the State. Commenter 2709.

Comment 268: Electric vehicles are the wave of the future! Green energy will create jobs & a clean environment that we all deserve to have. Commenter 4193.

Comment 269: Furthermore, the implementation of ACC II in New York will contribute to positive net national job gains of approximately 11,700 by 2050, and the new jobs are expected to be nearly twice as well-paid as those replaced. See Appendix A A for the full report.

Commenter 2617.

Comment 270: Adoption of ACC II will result in a net increase of over eleven thousand seven hundred jobs through 2050, and these new jobs will be nearly quite as well paid as those replaced. Commenter 4431.

Response to Comment 267-270: As set forth in the RIS, the Department expects that many new jobs related to electric charging infrastructure deployment will be available as New York State transitions to electric transportation. Existing automotive repair technicians are expected to retain their positions as the fleet transitions to ZEVs and PHEVs.

Comment 271: Battery-electric cars and trucks also do not release tailpipe emissions. In 2018, charging an EV at home in New York City was the equivalent of paying \$0.36 per gallon of gasoline. And rural EV drivers could save an average of \$533 annually by switching from gasoline to electricity. It is crucial to build out these programs so that New York has a chance of meeting its aggressive climate goals, especially in one of the sectors that has been the hardest to decarbonize. Commenter 2576.

Comment 272: Recent data has also shown that the average light-duty zero-emission vehicle in New York is expected to save its owner between nine and twelve thousand dollars in fuel and maintenance costs over the size of a lifetime. It is crucial to build out these programs so that New York has a chance of meeting its aggressive climate goals, especially in one of the sectors that has been hardest to decarbonize. Commenter 4428.

Comment 273: The program will also result in cost savings for vehicle owners who switch to zero-emission vehicles due to lower operating costs. Commenter 4430.

Comment 274: ACC II will also reduce costs for drivers, according to analysis conducted by E.R.M. The average light-duty truck in New York will save its owner up to twelve thousand dollars in fuel and main -- maintenance costs over its lifetime. In addition, the average New York household to save one hundred and eighty-four dollars each year on its electricity bill.

Commenter 4431.

Response to Comments 271-274: As stated in the RIS, EVs have a lower total cost of ownership than ICEVs and home-charging offers significant economic benefits to EV owners.

Comment 275: Adoption of ACC II is also associated with annual vehicle cost savings from replacing ICE vehicles with ZEVs and accessing lower electric rates made possible by the extra electricity sales for EV charging, which total \$6 billion by 2050. Commenter 2617.

Response to Comment 275: It is likely that the equivalent cost of fueling a vehicle with electricity will remain lower than the cost of fueling with gasoline or diesel. As transportation electricity demand increases, the costs of investment in grid infrastructure would be spread across a larger base. This could result in lower per unit energy refueling rates.

Comment 276: NYSDEC repeatedly makes assumptions and predictions with no or inadequate support regarding cars, car components, and the costs of both.

For example, the “Economic and technological feasibility” section of NYSDEC’s regulatory flexibility analysis begins:

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.

NYSDEC provides no details or other support for either its characterization of the currently available fleet of ZEVs or its “expect[ation]” that technological progress will increase that fleet sufficient to meet the requirements of its proposed adoption of ACC II. This is not a meaningful analysis of either feasibility or the important value of consumer choice (a concept which is recognized nowhere in NYSDEC’s proposal or regulatory analysis). Moreover, NYSDEC fails to

recognize and account for the myriad direct and indirect federal and state subsidies required to bring current and future ZEVs into the marketplace, and whether the continuation of these subsidies will be required for ZEV sales and technology to be feasible.

Similarly, with respect to battery costs, NYSDEC states that “battery costs have declined by almost 90 percent since 2010 and are expected to continue to drop.” NYSDEC here repeats CARB’s mistake, ignoring the question whether the likely future supply and demand trends for critical minerals and other battery components will allow for the necessarily massive supply ramp-up in conjunction with continued falling prices which its analysis “expect[s].” Indeed, NYSDEC’s analysis does not mention “supply” (or “mineral(s)”) anywhere, despite research and commentary warning that critical mineral and battery component supply issues will form a major obstacle to the type of ZEV ramp-up its proposed adoption of ACC II blithely assumes will happen seamlessly. NYSDEC’s analysis further ignores that lithium-ion battery pack prices have in fact recently begun to rise, even before the true impacts of ACC II are felt.

Elsewhere, NYSDEC flatly states that it “believes CARB’s battery pack, non-battery component, fuel cell and hydrogen storage system, and delete engine cost estimates [i.e., internal combustion engine (ICE) manufacturing costs avoided] would similarly apply to vehicles sold in New York State.” No basis is provided for this “belief.”

NYSDEC also notes that “Federal and state incentives are currently available to offset” higher vehicle and infrastructure costs that will result from adopting ACC II. NYSDEC offers no

details, nor any analysis of whether this state of affairs is likely to last and, if it does not, what would be the implications for the cost analysis and overall viability of the regulatory program. Indeed, the Internal Revenue Service has not even issued final guidance on its implementation of the “buy America” provisions of EV subsidies pursuant to the Inflation Reduction Act, subsidies which were designed to protect national security by applying exclusively to ZEVs with 40-100 percent of the battery critical minerals and value of components sourced from or manufactured or assembled in the U.S. or a free-trade partner country. If applied consistent with the statutory language, these subsidies are not available to most ZEVs in the market today. Moreover, NYSDEC does not even consider the extent to which its proposal depends on a basket of more valuable subsidies, whether or not they will continue indefinitely, or the market implications of an increasing percentage of vehicle sales depending on cross-subsidies from a shrinking number of gasoline vehicle buyers. NYSDEC must account for the following costs and market impacts which currently are ignored in its proposal:

- Zero-emission vehicle credits, or “ZEV credits.” These credits are a currency created by the State of California to provide supplemental subsidies of EV sales to achieve their ZEV sales mandate. NYSDEC must disclose the cost of this incremental subsidy that manufacturers of EVs require (in addition to many other subsidies) to entice buyers to meet state EV sales mandates. If buyers wanted EVs, the ZEV credit price would be \$0, but California and other states explicitly decided to not collect this data from automakers, so the public has no information about the costs of this scheme. NYSDEC must disclose who is paying the costs of the ZEV credits. Will New York gasoline and diesel vehicle buyers cover the costs of ZEV credits for EV sales in the state, i.e., will the MSRP of a gasoline pickup truck in New York be higher than the MSRP of a

gasoline pickup truck in a state without a ZEV sales mandate and ACCII? If so, by how much? Or, will nationwide gasoline and diesel vehicle buyers cover these costs? If so, under what authority will New York impose these costs on consumers nationwide? How much do these costs increase the price of gasoline and diesel vehicles? Also, if state ZEV sales mandates increase and battery minerals become more scarce, the value of ZEV credits are certain to increase significantly; however, NYSDEC does not consider these costs.

- EPA GHG “multiplier” credits for EVs. These credits give an extra manufacturing subsidy to EV makers to meet EPA’s GHG standards, despite EPA having no authority to do so, and are not based on any real-world avoided emissions. NYSDEC does not estimate the costs of this subsidy to the extent that its proposal increases EV sales. Similarly, NYSDEC does not consider that if EPA’s GHG multiplier credits are determined to be unlawful and/or rescinded by regulation, the value of the ZEV credits must necessarily increase to offset them. NYSDEC should provide an estimate of the costs of these subsidy payments as a result of the proposal and which party(ies) will incur the costs of these subsidies, such as New York buyers of gasoline and diesel vehicles and/or nationwide purchasers of gasoline and diesel vehicles.

- Corporate Average Fuel Economy (CAFE) “multiplier” credits. Automakers and the National Highway Traffic Safety Administration (NHTSA) seem to be applying a long-expired incentive originally created to spur the commercial availability of EVs. This treatment allowed automakers to divide the gallon of gasoline equivalent for alternative fuel vehicles, including EVs, by 0.15, effectively producing a 6.67 multiplier of fuel economy credits. While this provision expired in

2004, NHTSA appears to be continuing to apply it. In other words, EVs have been receiving at least 667% of the real-world fuel economy they achieve on the road and EV manufacturers have been selling these credits to manufacturers of gasoline and diesel vehicles. NYSDEC should provide an estimate of the incremental costs of these subsidy payments as a result of the proposed rule and which party(ies) will incur the costs of these subsidies, such as New York buyers of gasoline and diesel vehicles and/or nationwide purchasers of gasoline and diesel vehicles.

- NYSDEC fails to consider that gasoline and diesel drivers pay significant federal and state liquid fuel taxes, comprising more than 60 cents per gallon on average of total fuel costs, to fund building and maintenance of federal and state roads, bridges, and even bicycle lanes. Conversely, EV drivers pay nothing or close to nothing. There are no federal taxes on electricity and most states either exempt most classes of electricity purchases from state taxes or apply de minimis taxes well below 1 percent. Gasoline and diesel drivers also pay higher registration fees and excise taxes in many states. NYSDEC must account for how ACCII will shrink the pool of gasoline and diesel vehicles paying taxes and the corresponding shortfall in tax receipts. This is a real and material cost that both California and NYSDEC have ignored.

Finally, NYSDEC ignores the fact that California and New York are very different states. New York has only about one-third as many vehicles as California, with EV registrations making up only a fraction of one percent of New York's fleet. Unlike California, therefore, New York will effectively be starting from scratch and attempting to match California's goal of mandating EVs

as one hundred percent new sales by 2035. Completely transforming New York’s fleet in a short time will have severe distributional effects that NYSDEC has not acknowledged. Because New York City has unusually low car ownership compared to the rest of the country, NYSDEC is placing the responsibility for full EV adoption disproportionately onto the state’s suburban, small-town, and rural populations.

ZEVs are more expensive on average than their ICE vehicle counterparts and unaffordable for many households—in the first calendar quarter of 2022, the average price of the top-selling light-duty BEV in the U.S. was about \$20,000 more than the average price of top-selling ICE vehicles.

The price disparity has not improved, with the average price of light-duty EVs near \$66,000 in August 2022 and continuing to rise. By contrast, the median per capita and household incomes in New York are approximately \$75,157 and \$43,208, respectively. Per New York Department of Transportation’s (“NYDOT’s”) August 2022 NEVI Plan, “[n]early 13% of [New York’s] population lives in poverty.” EV barriers to low-income stakeholders include, but are not limited to: limited driving/battery range; inability to charge in different housing and work situations; high price points to purchase, maintain, and insure EVs; availability of replacement parts and qualified mechanics, as well as ease and cost of repairs; and unpredictability regarding future electricity costs.

NYDOT has highlighted practical challenges inherent to EV adoption in its 2022 NEVI Plan. Per NYDOT, “[a]lthough much of [New York]’s population lives in metropolitan areas, most of the

State's geography is rural in nature." For example, "[a] drive from Montauk, on the easternmost area of Long Island, to Niagara Falls, in the western portion of the State, stretches more than 520 miles and requires a 9-hour drive." Additionally, "[w]here development densities are extremely high, access to land and appropriate levels of electric power to support DCFC [Direct Current Fast Charging] can be challenging [in New York]; where development is low, particularly in areas that are extremely remote, access to three-phase power and cellular service for charging stations can also be a challenge." "In such rural areas, DCFC are not likely to be profitable in the near-term due to limited traffic volumes which are expected to result low usage levels."

Additionally, according to NYDOT:

"[R]esearch conducted by New York State's Department of Public Service (DPS) to identify immediate and long-term actions to best support ZEV market growth in New York State revealed the following related to publicly accessible DCFC:

- The costs to "make-ready" a site for EV charging present an economic barrier to EV charging station developers. This includes electrical transformer upgrades, trenching and boring for conduits, conductors, poles, and towers.
- For upstate DCFC station locations, where electric vehicle adoption rates are lower than the downstate New York City Metropolitan area, the expected charging station utilization during the initial ten-year period of operation are estimated to result in negative 10-year net present value and initial return on investment, even with make-ready support."

NYSDEC falls short in communicating such challenges, and representing the concerns of stakeholders associated with singular reliance on electrified transport in its assessment of ACC

II. Commenter 4426-4427.

Response to Comment 276: The Department disagrees with the Commenter's assertion that the Department made unsupported assumptions and predictions regarding the availability of EVs. Lists of available BEV and PHEV models for sale are readily available.²⁷ Related information is available through various forms of media including New York's Drive Clean Rebate Program (see Response to Comment 171-177), vehicle manufacturer statements regarding EV transition plans^{28, 29, 30}, and OEM advertisements. For example, there were seven EV ads during the 2022 Super Bowl and three in the 2023 Super Bowl³¹ which is watched by more than 91 million Americans since 2021.³²

Vehicle subsidy programs are beyond the scope of this rulemaking. See Response to Comment 171-177. Mining of battery minerals and supply chain issues are also beyond the scope of this rulemaking. See also Response to Comment 238.

²⁷ See Current BEV models available in the US, Current PHEVs available in the US, Future EVs at:

<https://evadoption.com/>

²⁸ <https://www.forbes.com/wheels/news/automaker-ev-plans/>

²⁹ <https://www.consumerreports.org/cars/hybrids-evs/why-electric-cars-may-soon-flood-the-us-market-a9006292675/>

³⁰ <https://www.protocol.com/climate/electric-vehicle-automaker-goals>

³¹ <https://www.pcmag.com/news/despite-ev-push-most-automakers-opt-out-of-2023-super-bowl-ads>

³² <https://www.statista.com/statistics/216526/super-bowl-us-tv-viewership/#:~:text=The%202023%20edition%20of%20the,Super%20Bowl%20XLIX%20in%202015.>

The Department maintains that the cost of battery packs are approximately 90% lower now than in 2008.³³ Vehicle manufacturers and battery manufacturers are also exploring various battery chemistries as alternatives to current batteries that utilize lithium, nickel, cobalt, and other rare-earth minerals to further reduce costs. These include solid-state batteries which use solid electrolytes, lithium iron phosphate batteries which exclude nickel and cobalt, and silicone anode lithium-ion batteries.³⁴ Private and public investment in battery recycling has also significantly increased over the last few years.³⁵ All of these options reduce or eliminate rare-earth minerals.

The Commenter asserts that the Department failed to provide a basis for its assessment that 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. Since vehicles delivered for sale in New York are indistinguishable from those delivered to California, the cost of these components will be the same.

Federal incentive programs, rebates, and subsidies are beyond the scope of this rulemaking. The Department notes, however, that while the current New York State incentives were not considered for purposes of the ACC II regulatory cost analysis, the Department agrees that ZEV purchase incentives are an important mechanism for increasing EV sales. The Department is

³³ <https://www.energy.gov/eere/vehicles/articles/fotw-1272-january-9-2023-electric-vehicle-battery-pack-costs-2022-are-nearly>

³⁴ Automotive News. November 14, 2022. Page 49.

³⁵ <https://www.energy.gov/articles/biden-harris-administration-announces-nearly-74-million-advance-domestic-battery-recycling>

engaged with other agencies and authorities to ensure continued, recurring funding for these programs.

ACC II establishes emission standards for new vehicles. The price of ZEV credits is beyond the scope of this rulemaking and is determined largely by the vehicle manufacturers involved in the transaction and market factors. The price of ZEV credits may be obtained from vehicle manufacturer's public filings with the federal Security and Exchange Commission or through online searches. For example, an online search shows that Tesla averaged approximately \$3,500 per credit for a total of \$2.1 billion in revenue from 2021 through the first quarter of 2022.^{36,37}

Also, the price of ZEV credits is generally independent of the retail price of vehicles. The purchase of ZEV credits is a compliance mechanism used by manufacturers at their option. Multiple factors impact the price of vehicles including the price and availability of raw materials and components, supply chain disruptions, labor contracts, taxes, and trade tariffs.

The Commenter further states that purchasers of ICEVs are subsidizing the sale and purchase of ZEV credits and paying higher vehicle purchase prices as a result. Generally speaking, vehicle manufacturers have historically subsidized less popular or profitable vehicle models with the sale of more popular and/or more expensive models. This is not a new phenomenon exclusive to EVs.

³⁶ <https://www.teslarati.com/tesla-zev-credits-usa-more-valuable-inflation-reduction-act/#:~:text=And%20while%20the%20value%20of,each%2C%20according%20to%20Auto%20News.>

³⁷ <https://www.autonews.com/regulation-safety/will-teslas-zev-credits-become-hot-commodity>

EPA greenhouse gas and National Highway Traffic Safety Administration (NHTSA) Corporate Average Fuel Economy (CAFE) multiplier credits are beyond the scope of this rulemaking.

Fuel taxes on petroleum-based fuels are also beyond the scope of this rulemaking. However, the Department agrees that combined State and federal fuel taxes are more than \$0.60 per gallon. The total was \$0.6662 per gallon in March 2022.³⁸ Many states have adopted, or are considering, increased annual fees for EVs to offset lost fuel tax revenue.^{39, 40} Other options include vehicle miles traveled (VMT) fees and fuel taxes on electricity used at public charging stations. The Department and other State agencies and authorities are aware of the fuel tax issue and will explore options to address declining fuel tax revenue.

The Commenter alleges that intrinsic differences between California and New York State preclude New York's adoption of ACC II. The Commenter states that New York has 1/3 as many vehicles as California. California has approximately 29.1 million registered light-duty vehicles, whereas New York has approximately 11.7 million, which is 40% of California's fleet. The Department notes that while EVs account for approximately 1% of New York's total light-duty vehicles, they now exceed 6.5% of all new light-duty vehicle sales (see Response to Comment 154-157). Also, New York is not "starting from scratch" as Commenter alleges. New York has implemented the California program since 1990 and the percentage of new EVs is growing rapidly. New York is also undertaking several ancillary programs to support widespread

³⁸ <https://www.news10.com/news/gas-taxes-in-new-york-compared-to-rest-of-u-s/>

³⁹ <https://www.myelectricvehicle.com/research/interesting-finds/states-that-charge-extra-fees-to-own-an-electric-vehicle>

⁴⁰ <https://www.ncsl.org/energy/special-fees-on-plug-in-hybrid-and-electric-vehicles>

adoption of EVs through increased availability of EV charging infrastructure and purchase incentives (see Response to Comment 171-177). The renewed federal tax credit program will assist in ZEV adoption on a national scale.

The Department disagrees with Commenter's allegation that the burden of EV adoption is disproportionately placed on suburban, small-town, and rural populations due to low vehicle ownership totals in New York City relative to the rest of the country. The ACC II regulation will be implemented statewide. There are approximately 6.1 million light-duty vehicles registered in the 53 Upstate counties and approximately 5.6 million light-duty vehicles registered in the 9 New York Metropolitan Area (NYMA) counties, which include New York City.⁴¹ These numbers do not support the assertion that areas outside of New York City are bearing a disproportionate burden. Furthermore, New York State has statutory laws establishing a goal of 100% new light-duty ZEV sales by 2035 in addition to, and adopted prior to, California's ACC II regulation (see Response to Comment 124 and Response to Comment 130-142).

Commenter states that the average price of the "top selling" light-duty BEV in the U.S. was about \$20,000 more than the average price of "top selling" ICEV without providing information on models in 2022, with an average price of \$66,000. The Department maintains that the average purchase price for BEVs is elevated due to manufacturers initial offerings, predominantly focusing on premium luxury models and the more recent introduction of BEV trucks. BEV trucks are more expensive than other vehicles, in line with the trend for ICE trucks. Inflation,

⁴¹ New York State DMV registration data March 2023.

supply chain issues, and other factors contribute to an increase in new vehicle prices. The Department notes that the average price of a new EV declined 10% since October 2022 to an average of \$58,385.⁴² A factor in this significant decrease is the choice of manufacturers including, but not limited to, Tesla and Ford decreasing their prices by up to \$13,000⁴³ and \$5,900⁴⁴ per vehicle respectively. Tesla also announced another round of price cuts of up to \$5,000 per vehicle.⁴⁵

The Department acknowledges Commenter's estimates of the median household and per capita income at \$75,157 and \$43,208, respectively. The Department also acknowledges Commenter's statement that approximately 13% of New York residents are below the poverty level. The Department notes that the average household income in New York is \$111,583⁴⁶ and that 87% of residents are above the poverty level. The segment of residents below the poverty level is one of the reasons that the Department is pursuing environmental justice value programs as part of ACC II and is committed to meeting the State's environmental justice goals. See also Response to Comment 251-259.

⁴² <https://caredge.com/guides/average-price-of-an-electric-car>

⁴³ <https://jglouise.com/2023/01/23/tesla-price-cuts/#:~:text=According%20to%20Electrek%2C%20the%20company,strong%20demand%20for%20its%20vehicles.>

⁴⁴ <https://www.forbes.com/sites/qai/2023/02/06/ford-cuts-prices-in-response-to-teslas-reductionswhats-next-for-ev-in-2023/?sh=1a1155835c57>

⁴⁵ <https://insideevs.com/news/661285/tesla-cuts-prices-on-all-us-models-again/>

⁴⁶ <https://www.incomebyzipcode.com/newyork#:~:text=The%20following%20data%20are%20the,Per%20Capita%20Income%3A%20%2443%2C208.>

The NEVI plan and the DPS Make-Ready program are beyond the scope of this rulemaking. Both programs are however designed to support the acceleration of ZEV adoption. See also Response to Comment 278-297.

Comment 277: NYSDEC's consumer-impact analysis is notably thin. It makes multiple assumptions with little or no support.

NYSDEC notes that “[CARB’s] analysis assumes all compliance costs are passed on to California vehicle purchasers.” NYSDEC then asserts: “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.” But this is hardly a reasonable assumption. Without a comparison of the respective state of California’s and New York’s electrical grids and the relative status of repairs to these grids that are underway, New York has no justification for this “cut and paste” analysis. Additionally, New York’s climate differs from California’s, with its colder weather negatively impacting charging efficiency and EV range, affecting both individual and systemic cost analyses. Indeed, NYSDEC nowhere notes that its state’s climate differs from California’s climate, let alone analyzes the implications of this difference. Cold climate conditions like those experienced in New York have been shown to significantly reduce the battery range and efficiency of BEVs. According to New York Department of Transportations’ NEVI Plan dated August 2022, “[v]ery cold temperatures (below 30 degrees Fahrenheit) have a significant effect on electric battery and charging performance. Charging is much slower in cold temperatures, and DCFC may only charge at a fraction of their rated speed in cold temperatures. Further, all-wheel

drive vehicles are more popular in snowy climates. These vehicles have lower range than identical vehicles with front or rear wheel drive, which could trigger the need for additional charging.”

NYSDEC also has failed to quantify the cost to utility ratepayers associated with subsidized EV charging rates by ratepayers that do not own or operate EVs. These rates and rate schedules are discriminatory and prohibited by federal and state law. For example, NY’s largest utility offers below-market rates to EV owners: “Electric vehicle owners on the residential time-of-use rate are eligible for a reduced monthly customer charge. Instead of \$21.46, you’ll be charged \$17.00 if you email us a copy of your electric vehicle registration document together with your account number annually every March. If you have an electric-vehicle-only meter and fail to submit your vehicle registration document together with your account number annually, your account may revert to a small business rate, which has a higher monthly customer charge of \$28.10. NYSDEC cannot justify ACC II as cost-effective when the state is providing owners and operators of electric vehicles and trucks with below-market rates compared other electricity customer classes. These rates are discriminatory, preferential and do not reflect the cost of providing electric service as required under federal and state law. In doing so, NYSDEC’s proposal arbitrarily ignores the massive costs of upgrading the electric distribution system to serve EVs, including replacements and upgrades of transformers, circuits, conductors, substations, transmission, and generation.

Indeed, one utility that provides service to parts of New York has determined that EVs will require that every highway passenger plaza must be able to supply as much power as a sports stadium (5 MW) by 2030, and that of a small town (20 MW) by 2035 and that truck stops would require more than 30 MW of power capacity, an amount typical for a large industrial plant, by 2045. NYSDEC has failed to consider, let alone account for any of these costs and the associated emissions with building out and maintaining this new infrastructure. Notably, the study was specifically designed to represent forecasted electric demands if New York State achieves its “goals to achieve 30% zero-emission MHDV sales by 2030 and 100% by 2045.”

NYSDEC further notes that “[t]he effects of general cost increase due to the likelihood of out-of-state or used [light- and medium-duty vehicle] purchases have been shown to be unpredictable,” and that “pre-buy” is “highly uncertain and may vary due to the dynamics of the industry,” before concluding, in a non sequitur with no apparent connection to these acknowledgments of uncertainty, that it “believes a ‘no-buy’ scenario under which consumers choose to reduce purchasing of new vehicles regulated under the proposed regulation is unlikely.” Indeed, there is increasing evidence that regulations like ACC II, to mandate EV sales—along with the aforementioned cross-subsidies from gasoline and diesel vehicle buyers—are leading manufacturers to abandon sales of the least expensive and higher fuel economy gasoline and diesel vehicles that do not receive similar subsidization. Cox Automotive found that “in December 2017, automobile makers produced 36 models priced at \$25,000 or less. Five years later, they built just 10,” pushing low-income buyers out of the new-car market and into the used-car market. Conversely, in December 2017 automobile manufacturers offered 61 models for sale with sticker prices of \$60,000 or higher and in December 2022, they offered 90.

Regulations like ACC I and ACC II are primary drivers of this trend toward eliminating affordable vehicles and NYSDEC must account for these market impacts to lower-income car buyers.

NYSDEC also has failed to, and must, account for how the costs of its mandate will significantly reduce the total sales of new automobiles, significantly delay fleet turnover, create large incentives to maintain and operate older gasoline and diesel vehicles, and increase the amount of NOx and VOC and PM2.5 emissions from the mobile fleet compared to not implementing the ACCII mandate. To the extent NYSDEC estimates any health benefits from its mandate, this estimate could show that its mandate will produce a net increase in NOx emissions, VOC emissions, and PM2.5 emissions.

Instead, after repeatedly noting fundamental uncertainties (which it does not try to qualitatively analyze much less quantify), NYSDEC manages to say what overall purchase scenarios are “unlikely.” (Note that what NYSDEC is deeming “unlikely” is, in fact, the prospect that consumers will reduce their purchases of more expensive goods—which would seem to be axiomatically likely, at least in the absence of any explanation to the contrary.)

NYSDEC concedes ZEVs cost more up front, but asserts that “total cost of ownership is likely to be lower” than that of internal combustion engine-driven cars due to operational, fuel, and maintenance savings. Again, without an analysis of the differences between New York’s and California’s existing and projected future charging infrastructure, and without consideration of

the costs of the aforementioned cross-subsidies or an analysis of how many ZEV owners are expected to use commercial charging stations as compared to charging at home, NYSDEC has not justified its wholesale reliance on CARB’s analysis and has not presented meaningful analysis of the impacts that adopting ACC II is likely to have for New York.

NYSDEC claims to be “unaware of any significant adverse impact to jobs and employment opportunities because of previous revisions” to its car standards. NYSDEC does not indicate whether it looked into any such possible impacts. AFPM urges NYSDEC to consider, at a minimum, the impact from previous rounds of regulation on auto mechanics and disruption from squandering of sunk costs in the petroleum supply chain.

By way of example, NYSDEC’s Revised Job Impact Statement concedes that “[t]he proposed amendments to the regulations may adversely impact jobs and employment opportunities in New York State.” Extrapolating from CARB’s estimates, NYSDEC estimates that there will be an approximate net loss of 43,214 jobs in the state of New York by 2040. Yet NYSDEC proceeds to state that “[t]he proposed adoption of the ACC II regulation is not expected to result in any significant impact to employment.” New York stakeholders should have been afforded an opportunity to evaluate the data, costs, and assumptions underlying ACC II before NYSDEC proceeded with an emergency rulemaking.

NYSDEC does not expect adoption of ACC II “to have adverse impacts on car dealers,” and expects “no change in the competitive relationship with out-of-state businesses.” This seems to

assume, with no evidence cited, that no New York dealer competes for business with any dealer in a state that has not adopted ACC II. Even assuming this assumption made sense for California, with its vast spaces and lengthy, often rugged border areas separating it from neighboring states, it does not for New York. New York is considerably more compact, and the greater New York City area, especially, borders on densely populated areas of other states where cross-border competition for car sales is self-evidently a concern.

NYSDEC concedes vehicle purchasers will pay more for new ZEVs, particularly due to the cost of battery packs, but “[i]ncreased ZEV purchase costs are expected to be offset in part by state and federal purchase rebates and reduced operation and maintenance costs.” As discussed above, NYSDEC has done no analysis of the details of these rebate policies, their expected duration, and the impact if they do not endure. Additionally, NYSDEC appears to have entirely disregarded the cost of battery replacement, which needs to be done more often than the purchase of a new vehicle itself. Similarly, NYSDEC ignores all costs associated with recalls of unreliable, mandated vehicles. Consumers and society both bear real costs from this, as well as from associated waste and recycling impacts.

NYSDEC “estimates” that adoption of ACC II will have a “directionally similar” employment impact to the one suggested in CARB’s analysis. NYSDEC then attempts a crude, back-of-the-envelope calculation of employment impacts for New York, by simply multiplying CARB’s figures by the ratio of New York’s and California’s light duty sales and total non-farm statewide employment figures—both of which it asserts are 0.53, the latter with reference to federal Bureau

of Labor Statistics and state Department of Labor data, the former with no citation at all. It does this to project total employment impacts, as well as sector-specific impacts. Again, "[NYS]DEC estimates that ACC II will have a directionally similar impact on employment for reasons like those assumed by California." Here, at least, NYSDEC is refreshingly forthright: it has not done a real analysis of the employment impacts on its state, deferring instead to CARB both for figures and methodology.

Elsewhere, in the impact document specifically addressing jobs, NYSDEC concedes that employment at gas stations, repair shops, and parts retailers "may be adversely impacted," but "anticipate[s] that any losses in these sectors will be offset by" jobs in EV charging and tech training. This is not a reasonable assumption, absent substantiation. Auto mechanics for traditional cars are typically engaged for a full workday. The employment needs for monitoring and maintaining an EV charging station are, on their face, likely to differ. NYSDEC should compare the employment profile of an EV charging station as compared to that of maintenance and refueling jobs at ICE service stations. Without conducting meaningful analysis, NYSDEC's "anticipation" of an "offset" is not rational. Commenter 4426-4427.

Response to Comment 277: ACC II regulates new vehicle sales. The cost of compliance is born by vehicle manufacturers as the regulated entity. Compliance costs are factored into the sales price of vehicles, along with production costs, research & development costs, profit, and inflation, and these costs are passed on to consumers in the form of higher prices.

Commenter disagreed with the Department's statement that adoption of ACC II in New York would lead to lower compliance costs as a result of economies of scale. Commenter's reasoning for this is that this does not account for differences in the electrical grids between California and New York. Adoption of ACC II in New York (and in other Section 177 states) clearly has the potential to reduce manufacturers' compliance costs by spreading the costs over a significantly larger pool of vehicles rather than just California's sales. The electrical grids in the two states are not relevant factors for purposes of this consideration. Commenter also states that the net cost of compliance is affected by differences in climate in the two states because EV range is negatively impacted by cold temperatures. While cold temperatures do impact maximum range, they have no bearing on determining a manufacturer's net cost of compliance and whether that cost will be passed on to consumers.

EV charging rates in cold temperatures, all-wheel drive packages in cold climates, and utility rates are all beyond the scope of this rulemaking. See also Response to Comment 171-177 and Response to Comment 278-297. Also, the Department is familiar with the report cited by the Commenter regarding electrification of highway plazas which includes both light and medium/heavy-duty vehicle corridor charging. This topic is beyond the scope of this rulemaking.

The Department disagrees with Commenter's assertion that ACC I and ACC II are primarily responsible for vehicle manufacturers eliminating "affordable" vehicles, as well as the increase in new vehicle prices. The ACC regulations establish emission standards for new vehicles. It

does not prohibit the sale of any class of vehicle. In fact, ACC II specifically establishes a voluntary low manufacturer suggested retail price (MSRP) EJ value program to incentivize manufacturers to offer low MSRP vehicles to all consumers. Over the last decade, vehicle manufacturers have slashed the number of passenger cars and low-cost vehicle models, particularly small cars.⁴⁷ This was a voluntary, business-oriented decision each manufacturer made to focus on pickup trucks, SUVs and crossovers with higher prices and higher profit margins. The manufacturers also benefited from this shift to larger vehicles due to less stringent footprint-based greenhouse gas and CAFE requirements for larger vehicles. Again, these were voluntary decisions driven by the pursuit of higher profit margins, not mandates from environmental regulations.

The Department also disagrees with the assertion that the ACC II regulation will decrease vehicle sales, delay fleet turnover, and increase emissions. New York has implemented California new vehicle emissions standards since 1990, and the only significant decrease in new vehicle sales occurred in 2020 and 2021 due to the COVID pandemic and related supply chain issues. There is no evidence that adoption of the California regulations in New York has resulted in measurable or sustained decreases in vehicle sales, nor quantifiable data that residents are retaining older vehicles longer in response to regulatory adoptions. As mentioned previously, the ACC II standards are one factor, and arguably not the primary factor, in increasing vehicle prices. Some consumers may make the personal decision not to purchase a new vehicle due to the concern of overall increasing consumer prices. Many consumers are considering, and in

⁴⁷ <https://www.managementstudyguide.com/why-are-american-companies-no-longer-manufacturing-cars.htm>

growing numbers, purchasing EVs to in part avoid paying historically high fuel prices.^{48, 49,50}

Any pre-buy/no-buy that occurs may reduce the overall emissions reductions estimated to occur under ACC II, but it cannot increase baseline emissions.

Commenter asserts that the ACC II regulation and previous rounds of new vehicle regulations have negatively impacted the automotive mechanic job sector and will disrupt the petroleum industry by “squandering” sunk costs in the supply chain. ACC II regulates the sale of new ZEVS and ICEVs. New, conventional ICEVs will be sold until model year 2035. These vehicles are expected to remain in service until at least 2050. This means ICEV mechanics or technicians and petroleum fuels, and the associated supply chain, will be necessary for at least the same period. Auto mechanics/technicians are skilled trades people whose skills will still be required even after the fleet transitions to ZEVs. ZEVs will still require routine maintenance, even if that maintenance isn’t as extensive as ICEV maintenance. Repair technicians service increasingly computerized vehicles and rely upon computerized diagnostic tools to service these vehicles. Servicing ZEVs will be a continued evolution of the service and maintenance they currently perform. This highly skilled workforce will be able to transition to servicing ZEVs given the proper training and tools. The petroleum supply chain is beyond the scope of this regulation. Petroleum fuels will be required for light-duty vehicles through at least 2050.

⁴⁸ <https://www.nbcnews.com/business/autos/will-high-gas-prices-supercharge-electric-vehicle-sales-rcna18444>

⁴⁹ <https://www.forbes.com/sites/edgarsten/2022/06/28/gas-price-sparked-ev-interest-no-passing-fad-cox-economists-predict/?sh=510d1f7138f4>

⁵⁰ <https://www.cbsnews.com/texas/news/as-gas-prices-increase-so-are-electric-car-sales/>

The Commenter alleges that New York vehicle dealerships will be at a competitive disadvantage with out-of-state dealerships. Cross-border sales of vehicles have always existed, and it works both ways. Out-of-state consumers also purchase vehicles in New York. New York's regulations require all new vehicles, defined as having an odometer reading of 7,500 miles or less, be CARB certified to be registered for on-road use in New York. Therefore, any vehicle purchased out-of-state must meet the ACC II regulations to be legally registered in New York. Many of the states bordering New York have adopted, or intend to adopt, the ACC II regulation, which will make cross-border sales a moot point.

The commenter asserts that the cost of battery replacement is not accounted for and needs to be done more often than purchase of a vehicle. The ACC II regulation includes warranty and battery requirements. Furthermore, the traction battery is covered by an 8 year/100,000-mile warranty. A failure during this period would be covered at no charge to a consumer, including diagnostic fees.

The Department disagrees with Commenter's assertion that ZEVs are inherently unreliable and subject to recall at greater levels than ICEVs. All vehicles must be certified to full useful life standards and manufacturers are required to conduct durability testing as part of the certification process. Emissions components are certified to function without issue during that period. If they fail at an excessive rate, then vehicles are recalled. This is the same for ICEVs. Recalls are done at the vehicle manufacturer's expense, there is no charge to vehicle owners for valid recall repairs. Any recalled parts would need to be discarded or recycled in compliance with state

regulations. Lithium-ion batteries are recyclable and recycling facilities are being constructed on a national scale, including in New York State⁵¹. See Response to Comment 321.

The Department disagrees with Commenter's assertion that scaling California's estimate of ACC II impacts on labor to estimate the impact in New York is invalid. Scaling of regulatory impacts is a common practice and the Department supported the ratio that was used, how it was derived, and how it was applied to which costs. The Department also used New York specific labor statistics where it determined that scaling California values were not representative of New York conditions. The Commenter is correct that the Department did not provide a citation for the ratio of New York to California vehicle sales in the RIS. The ratio was derived using model year 2021 new vehicle sales reported in New York and California.

Lastly, the Commenter takes exception to the Department's assumptions regarding job impacts. Specifically, the Commenter alleges that current gas station, repair shop, and automotive parts retail employees will not be able to transition to new employment in a green economy.

Commenter asserts that ICEV mechanics are employed in a full-day position and monitoring EV charging stations is not comparable employment. As discussed above, ICEV repair technicians are expected to transition to repairing ZEVs. They may also remain in current employment as ICEVs are expected to remain in-use until at least 2050. Automotive repair technicians were not assumed to transition to monitoring EV stations. The Department believes new jobs will be

⁵¹ <https://www.governor.ny.gov/news/governor-hochul-announces-agreement-canadian-firm-li-cycle-create-nearly-270-jobs-monroe>

available constructing and servicing electric vehicle infrastructure. Some jobs may also be available related to customer service support for these chargers.

Infrastructure

Comment 278: New Yorkers would move toward electric cars if we had charging stations!

Commenter 321.

Comment 279: Having the needed quota of charging stations all across the state however, will be an essential part of this transition. Commenter 327.

Comment 280: We need to massively increase the number of charging stations throughout the US, so it makes sense for people to move to electric cars. Commenter 1276.

Comment 281: I personally drive a hybrid car, because even in such a densely populated area as Long Island it's not easy to find a charging station. I work in New Hyde Park - the closest charging station is in Garden City. Am I supposed to take a cab from there and defeat the non-polluting 20 miles I just drove by polluting the last 2 or 3? Commenter 1276.

Comment 282: I currently live in a condo and do not have a garage. How am I supposed to charge my vehicle overnight? Can you honestly state that there will be enough charging stations throughout the state to charge all of these vehicles? Commenter 2057.

Comment 283: To support the increase in ZEV sales share, New York already has available charging infrastructure that will keep growing. As of February 2022, there were almost 9,000 charging ports available in New York across 3,222 locations, and the average distance from one charger to the next is 17.06 miles. While this is a good start, additional infrastructure will be needed to help support the transition to a zero-emission vehicle future. Luckily, with the Infrastructure Investment and Jobs Act—and continued utility investments, private investments, and state action, we will continue to see an increasing amount of reliable and fast electric charging infrastructure not only along highways, but also within communities.

New York is expected to receive \$175 million over the next five years to help build out charging infrastructure on major highways no more than 50 miles apart, as well as ensure robust infrastructure is available in communities. In 2020, the New York Public Service Commission approved a \$701 million program (The Electric Vehicle Supply Equipment and Infrastructure Program), which will install almost 54,000 Level 2 charging stations as well as 1,500 Direct Current Fast Charging stations throughout the state by 2025. This is in addition to existing programs administered by DEC, NYSERDA and NYPA, to fund charging infrastructure across the state, and millions of utility spending authorized by the Public Service Commission. Commenter 2617.

Comment 284: The electric charging stations are needed throughout the State. Commenter 2726.

Comment 285: The mandated increase in the sale of EVs must be accompanied by an aggressive program to increase the number of EV charging stations, particularly those available to apartment dwellers such a me. Commenter 2845.

Comment 286: We currently have an (sic) Chevy Bolt EV and a Chrysler plug-in hybrid, which we usually drive using battery, except on long trips. We get our electricity from renewable sources. I would like everyone to have the opportunity to green their transportation! As we have more rapid charging capabilities, it will be even easier to transition to 100% zero emission vehicles. I urge you to make this possible by 2035. Commenter 3022.

Comment 287: Then we can focus on getting the rest of the country on board one state at a time by putting people to work on our infrastructure so our grid can handle the increased load.

Commenter 3148.

Comment 288: And we need more support for charging stations to make EVs more convenient. Commenter 3357.

Comment 289: Dear Lawmakers, I can't wait to get an EV, yet I am also very aware of the barriers to getting such a car. I urge you to finalize the Advanced Clean Cars program rule-making process before the end of the year to build the momentum necessary to make this choice more readily available to everyone. Infrastructure improvements that provide easily accessible and readily available charging stations are particularly critical. This will be a huge step in convincing drivers that they will not be stranded without an opportunity to recharge their cars. Commenter 3636.

Comment 290: I am an ev owner, and it's difficult to go long distances because there aren't many fast chargers. Commenter 3694.

Comment 291: While you're at it, can we please get more electric charging stations in the city so that it makes sense for people to buy electric vehicles. I know I'd like to buy one myself. Commenter 3994.

Comment 292: We need more charging stations! Especially in Brooklyn. Commenter 4072.

Comment 293: I just bought an all electric car, and we also need to support infrastructure for convenient and easily accessible fast-charging stations on our roadways. A recent road trip I took in New York state took hours longer due to lack of easily accessible, and working DC fast-

charging stations. Issues like that make owning an electric car less attractive to the general public. Commenter 4133.

Comment 294: We need a huge increase in charging stations. And inexpensive vehicles. Commenter 4142.

Comment 295: Electric vehicles and related infrastructure will add jobs, and promote travel while mitigating climate change. Why not do it? Commenter 4166.

Comment 296: Public charging stations throughout the city can make for huge advancements in the use of electric vehicles by New Yorkers. Commenter 4180.

Comment 297: Charging infrastructure to support the lack of vehicles also continues to increase. There are currently three thousand two hundred and forty-seven locations with public charging infrastructure in New York with nine thousand and twenty-two public charging ports available to drivers and more charging infrastructure will be coming online in New York within the next couple of years as a result of the one hundred thirty five million dollars from the infrastructure investment and Jobs Act. Commenter 4431.

Response to Comment 278-297: Electric vehicle charging infrastructure is beyond the scope of this rulemaking. However, the Department is actively engaged with other state agencies and

authorities, as well as stakeholders, to address concerns. There are currently no less than 1,185 DCFC and 7,836 Level 2 publicly accessible charging ports in New York State.⁵² The number of available ports is expected to increase significantly due to ongoing efforts by State agencies and authorities, municipalities, and private investment. The New York State efforts include NYSERDA's DCFC program, NYPA's Evolve NY program, the DPS Make-Ready program, and NYSDOT administration of the NEVI program. As part of the Make-Ready Mid-Point review, DPS staff recently revised recommendations for the required number of Level 2 and DCFC chargers need to support the growing number of EVs in New York State by 2025. The recommended number of Level 2 chargers was decreased from more than 53,000 to approximately 43,122 and the number of DCFCs was increased from 1,500 to 6,003.⁵³ The mid-point review also proposed to increase the overall funding from \$701 million to \$1.108 billion. The Make-Ready program retains provisions to provide funding and programs dedicated to disadvantaged communities. A very significant percentage of light-duty charging does not happen at publicly accessible Level 2 or DCFC chargers, rather it occurs at home or through workplace charging, although it is variable across the state. See also Response to Comment 171-177.

⁵² <https://atlaspolicy.com/evaluateny/>

⁵³ Department of Public Service Staff Electric Vehicle Make-Ready Program Midpoint Review and Recommendations Whitepaper. Page 7. March 1, 2023.
<https://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={90EB9E86-0000-C715-9E29-04D56492F528}>

Comment 298: Unambiguous regulatory requirements for ZEV sales are key not only for orienting capital investment in the vehicle industry but also for supporting long-range infrastructure planning by utilities and grid operators. Commenter 2028.

Response to Comment 298: The Department agrees with this comment.

Comment 299: Second, achieving these objectives will require infrastructure changes. Most homes are not currently capable of charging electric vehicles using Level 2 technology, and Level 1 technology can hardly be considered viable for most users. People who lack garages for their vehicles will find the installation of the necessary wiring to be problematic; those with garages will need to have their electrical system upgraded to provide 240V charging in the garage. Commenter 2064.

Response to Comment 299: Infrastructure and home charging are beyond the scope of this rulemaking. However, the Department is actively engaged with other state agencies and authorities, as well as stakeholders, to address concerns. Home charging stations provide flexibility and reduced “fuel” costs over using public charging stations for those able to charge their vehicles at home. They do represent an additional upfront cost on top of the investment in the vehicle. All major cost projections for EVs in New York’s ACC II rulemaking included the cost of installing a Level 2 home charging station. Under ACC II, all new ZEVs and PEHVs will be required to be sold with a charging convenience cord capable of both Level 1 and Level 2 charging. The average Level 2 charging station materials and installation cost is roughly \$1,300

but ranges from \$1,000-\$2,500 depending on the home's needs. These prices are projected to slightly decline in the future as more electric vehicles hit the market.⁵⁴

Homeowners that already have three-prong 240-volt outlets, typically used for electric driers or electric stoves, located near where they park their vehicle may be able to easily plug in a Level 2 charging station or cord and charge their EV. An electric panel upgrade can be expensive, but options exist to bypass the panel and provide a 240v outlet at a much lower cost (60 – 80%) than an electric panel.⁵⁵

Even with a 240-volt outlet, some homeowners may not be able to afford, or be able to install, a Level 2 charger as commenter noted. There are federal incentives for home charging stations that can help with this, including a tax credit of 30% of the cost of hardware and installation, up to \$1,000. This tax credit is available through December 31st, 2032. Beginning in 2023, the credit will also apply to bi-directional charges, which enable EVs to serve as grid-connected batteries typically earning bill credits from their utility for providing this service and providing backup power for the home during blackouts.

Vehicle owners living in multi-unit dwellings or in single family homes without off-street parking face additional barriers to home charging. New York State agencies and authorities are

⁵⁴ https://theicct.org/sites/default/files/publications/ICCT_EV_Charging_Cost_20190813.pdf

⁵⁵ <https://electrek.co/2022/07/27/siemens-home-ev-charger-adapter/>

actively engaged in expanding fast charging availability to address concerns of residents without the ability to charge at home.

Comment 300: Moreover, I do not want to deal with home charging infrastructure and the safety risk of Lithium-Ion battery chargers below my bed room (sic). Commenter 2573.

Response to Comment 300: Level 1 charging remains an option for individuals reluctant, or unable, to install Level 2 charging in their homes. Level 1 charging utilizes existing 110V residential outlets and new vehicles will be required to be sold with a 20-foot charging convenience cord capable of both Level 1 and 2 charging. Level 2 chargers are also available that can be installed outside.

Regarding commenter's concerns about EVs and fires, there is scant evidence to suggest that EVs are more dangerous than ICEVs. EVs must pass the same safety tests as other vehicles, and data shows EV fires are rare compared to fires in gasoline- and diesel-powered vehicles.^{56, 57} One caveat is that EV fires tend to burn longer and at a higher intensity, although this is being addressed through safer battery designs and new fire management techniques.⁵⁸ Fire risks may be mitigated by refraining from overcharging the battery, which can place stress on the battery

⁵⁶ <https://www.autoinsuranceez.com/gas-vs-electric-car-fires/>

⁵⁷ <https://electrek.co/2022/01/12/government-data-shows-gasoline-vehicles-are-significantly-more-prone-to-fires-than-evs/>

⁵⁸ <https://www.cnn.com/2022/01/29/electric-vehicle-fires-are-rare-but-hard-to-fight-heres-why.html>

system. The National Highway Traffic Safety Administration (NHTSA) has also established the Battery Safety Initiative for Electric Vehicles to address safety risks related to EV batteries.⁵⁹

Comment 301: The regulatory documents associated with the Proposed Amendment do not address a critical feasibility problem. DEC must address BEV charging requirements and existing on-street parking. It will be necessary for BEV owners to not only find a parking spot but also one with charging infrastructure. Who is going to provide the that (sic) infrastructure? Who is going to pay for the likely upgrades necessary to the local distribution network for this additional load requirement? Is it possible to develop off-street charging infrastructure? If just 30% of the total vehicles in use in the New York City larger metropolitan commuting area were converted to BEVs, exactly how much land area would be required to charge them, and exactly where would this land be? I estimate that even for 30% BEV penetration it will be on the order of 600,000 vehicles. Assume both gasoline and electric vehicles take up 130 to 180 square feet of space. Assume it takes 4-10 minutes to refuel a typical gas car for 250-400 miles of range. Assume an Electric Vehicle takes up the same square footage of space, and takes 30 – 180 minutes to “re-fuel” for 70-200 miles of range. How much land will be required in the larger NYC Metro area if 30% of the vehicles in use in that region are converted from gas to electric? Where exactly will that land be? Commenter 2573.

Response to Comment 301: Infrastructure and parking, both on-street and off-street, are beyond the scope of this rulemaking. The Department notes that New York City’s Electric Vehicle

⁵⁹ <https://www.nhtsa.gov/battery-safety-initiative>

Vision Plan includes a planned network of 1,000 curbside charge points across the five boroughs by 2025, increasing to 10,000 by 2030. The Department is actively engaged with other state agencies and authorities, as well as stakeholders, to address concerns. See also Response to Comment 278-297.

Miscellaneous

Comment 302: The term “Light Duty Truck” (LDT) is used repeatedly without definition. The term is defined in Federal 49 CFR 541.4 that states:

2) Light-duty truck (LDT) means a motor vehicle, with motive power, except a trailer, designed primarily for the transportation of property or special purpose equipment, that is rated at 6,000 pounds gross vehicle weight or less.

This is inadequate to cover many of the large pickup trucks that are proliferating on our streets. For instance [see <https://www.gmc.com/gmc-life/how-to/understanding-gross-vehicle-weight-rating>]. “2020 GMC Sierra 1500 Crew Cab Short Box 4WD with the available 3.0L Duramax® Turbo-Diesel engine. The gross vehicle weight rating for this particular model is 7,200 pounds”. These oversized trucks are a threat to our air and safety. The proposed rules must be extended to cover them. Commenter 2.

Response to Comment 302: The Department acknowledges that an explicit definition of LDT was not provided in the rulemaking documents beyond defining the acronym. However, the definition of LDT offered by the commenter is outdated and does not match the definition of

LDT used in the Part 218 regulation. LDT is incorporated in 6 NYCRR Part 218-12(ab), which incorporates the definition by reference from California Code of Regulations (CCR), title 13, Section 1900(b)(11). This definition defines an LDT as the following:

11) “Light-duty truck” means any 2000 and subsequent model motor vehicle certified to the standards in section 1961(a)(1), 1961.2, or 1961.4 rated at 8,500 pounds gross vehicle weight or less, and any other motor vehicle, rated at 6,000 pounds gross vehicle weight or less, which is designed primarily for purposes of transportation of property or is a derivative of such a vehicle, or is available with special features enabling off-street or off-highway operation and use.

The definition of LDT was not changed in this rulemaking. The ACC II regulations apply to all passenger cars (PC), LDT, and medium-duty vehicles up to 14,000 pounds gross vehicle weight rating (GVWR), regardless of fuel type. The specific truck model mentioned by the commenter would be an LDT for regulatory purposes and within the scope of this rulemaking.

All new vehicles since the 1993 model year must be certified to California motor vehicle emissions standards to be registered for use in New York State. These vehicles meet all applicable emissions standards allowing them to be sold, purchased, and registered for use in New York State. There are also an increasing number of all-electric LDTs and sport utility vehicles (SUVs) for sale or coming to market soon. These vehicles have higher GVWR than comparable internal combustion engine vehicles due to the weight of the battery packs, but they have no tailpipe emissions and provide an overall benefit to air quality in the State. Safety

certification and safety concerns are the purview of the Federal Department of Transportation and are beyond the scope of this rulemaking.

Comment 303: Now, finally, we have some commitment from the industry to advance electric vehicles. And recent news regarding a tripling of EV market share in just two years is encouraging. Commenter 3.

Response to Comment 303: The Department agrees that many vehicle manufacturers have made public statements announcing goals to transition to electric vehicles. The Department has no comment on the tripling of EV market share in two years since no specific citation was provided.

Comment 304: But this move must be supported by the state's commitment to net zero emissions in the transportation sector outlined in the ACCII. Commenter 3.

Response to Comment 304: While the commenter does not reference a specific commitment, the amendments are consistent with the requirements of New York's 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 Department notes, however, that there are no commitments or requirements in

ACC II requiring net zero emissions in the transportation sector. However, see Response to Comment 311-314.

Comment 305: The changes incorporated in the Rules will help New York to meet its environmental commitments. Commenter 4.

Comment 306: One way to fight climate change is to ensure the regulation for clean cars. Commenter 7.

Comment 307: Gas-powered cars are contributing to climate change, creating air pollution, and causing heart and respiratory illnesses. Commenter 8-204, 206-208, 210-355, 357-422, 424-458, 460, 478, 493-494, 496-497, 926, 1104, 1183-1244, 1246-1313, 1315-1317, 1319-1517, 1519-1577, 1579-1671, 1673-1700, 1770, 1941, 1957, 1973, 1976, 1982, 2001, 2042, 2046, 2063, 2067, 2073-2126, 2128-2248, 2250-2301, 2303-2336, 2338-2345, 2347-2351, 2353-2361, 2363-2375, 2377-2382, 2384-2511, 2513-2530, 2532-2538, 2540-2572, 2574, 2577-2592, 2594-2616, 2618-2620, 4425.

Comment 308: There's no question that gas-powered cars are a major contributing factor in climate change. Commenter 209.

Comment 309: We need to do everything we can to combat the climate crisis, and gas-powered cars are a major source of greenhouse gas emissions. Pollution from these cars also contributes to illnesses such as heart and respiratory disease. Commenter 2337.

Comment 310: EVs are not perfect but their damage to the environment is far less than diesel automobiles. Commenter 2362.

Response to Comments 305-310: The Department agrees with these comments.

Comment 311: With every passing month, the scientific community's calls for action to curb greenhouse gas emissions is growing more urgent. New York's adoption of the ACCII rule will be the exact kind of action we need to clean up one of the dirtiest sources of pollution in the state. This will protect the health of our planet and the health of our people. Commenter 8-204, 206-208, 210-355, 357-422, 424-458, 460, 478, 493-494, 496-497, 926, 1104, 1183-1244, 1246-1313, 1315-1317, 1319-1337, 1339-1577, 1579-1671, 1673-1700, 1770, 1941, 1957, 1973, 1976, 1982, 2001, 2042, 2046, 2063, 2067, 2073-2126, 2128-2212, 2214-2248, 2250-2301, 2303-2336, 2338-2345, 2347-2351, 2353-2361, 2363-2375, 2377-2382, 2384-2511, 2513-2530, 2532-2538, 2540-2572, 2574, 2577-2592, 2594-2616, 2618-2620, 4425.

Comment 312: New York's adoption of the ACCII rule is one of the essential types of action we need to clean up one of the dirtiest sources of pollution in the state and in our country. This will protect the health of our planet and the health of future generations. Commenter 209.

Comment 313: Nationwide, the transportation sector produces more greenhouse gas emissions than any other single source. Commenter 175.

Comment 314: We need New York to adopt the ACCII rule to protect the health of our planet and the health of our people. Commenter 2211.

Response to Comment 311-314: The Department agrees with these comments. Transportation is the second largest source of greenhouse gas emissions in New York State, trailing only buildings, when calculated using the current greenhouse gas accounting requirements required by New York's CLCPA. Transportation accounts for 28% of New York's greenhouse gas emissions.⁶⁰ On-road mobile sources are the largest source of oxides of nitrogen (NOx) emissions in New York State, accounting for 63% of all NOx emissions. On-road light-duty vehicles account for approximately 30% of all NOx emissions from New York's transportation sector.⁶¹

⁶⁰ DEC, 2022 Statewide GHG Emissions Report. <https://www.dec.ny.gov/energy/99223.html#Report>

⁶¹ 2017 National Emissions Inventory (NEI). <https://www.epa.gov/air-emissions-inventories/2017-national-emissions-inventory-nei-data>

Comment 315: Honestly, this regulation should be slated for 2025, 2030 MAX. But thank you nonetheless for making an effort to stem pollution and get NY on the right path. Commenter 29.

Comment 316: But I am disturbed that the deadline is so far away. The law should start in 2024 as is being looked at for new buildings. Commenter 73.

Comment 317: The problems caused by gas-powered cars are big, but adopting ACCII with a 2024 deadline will help New York transition to our fossil free future. Commenter 73.

Comment 318: I think the cut off for electric cars should be 2030. Commenter 1548.

Comment 319: The rule is excellent and I urge you to move up the timeline to 2030 from 2035. Commenter 2001.

Response to Comment 315-319: Section 177 of the Clean Air Act requires New York to adopt standards identical to California's. The 2024 and 2025 model years are subject to the existing ACC I standards which provide a transition to ACC II. California's ACC II standards commence with model year 2026. The Department is obligated under the Clean Air Act to provide at least 2 years of lead time to vehicle manufacturers before the ACC II regulation may become effective. The 2026 model years starts as early as January 2, 2025, which required the Department to adopt regulations prior to January 2, 2023.

Comment 320: This is extremely important for the health of all humans and the planet. Please do whatever is in your power! Commenter 184.

Response to Comment 320: The Department thanks you for your support.

Comment 321: Our only concern is dealing with the battery improvement and disposal.

Comment 246.

Response to Comment 321: The comment does not provide specificity regarding battery improvement and battery disposal and those issues are beyond the scope of this rulemaking. However, the Department is actively engaged with other state agencies and authorities, as well as stakeholders, to address these types of concerns. For example, a private company, Li-Cycle, is constructing a lithium-ion battery recycling facility in Rochester, New York. This facility is projected to process the equivalent of 90,000 tons of lithium-ion battery material.^{62, 63} Other recycling facilities are operating, or being planned, across the country including Redwood Materials which recycled over 1,000 lithium-ion battery packs in a pilot program in California.⁶⁴

⁶² <https://www.rochesterfirst.com/news/business/li-cycle-to-hold-event-regarding-rochester-hub-facility/>

⁶³ <https://www.environmentalleader.com/2022/04/new-york-battery-recycling-plant-to-use-crystallization-system/>

⁶⁴ Automotive News. March 6, 2023. Page 28.

The battery labeling requirements in ACC II require all traction batteries to be labeled to support secondary use and recycling efforts. There is a growing industry focused on recycling traction batteries. New York is aware of the need to increase the availability of battery recycling in the state and will seek to implement or support programs and regulations that will address these issues. It is unlikely that EV traction batteries will be landfilled. New York State currently has laws prohibiting the disposal of lead-acid vehicle batteries⁶⁵ and rechargeable lithium-ion batteries⁶⁶. It is also possible that a secondary-use market will develop for EV batteries that are no longer suitable for vehicle propulsion, but may still provide suitable energy storage for commercial, residential, and off-grid applications.⁶⁷

Comment 322: New York has the opportunity to enact change not just locally, but within the entire country. This is an incredible opportunity to lead as New Yorkers. Commenter 273.

Response to Comment 322: The Department thanks you for your comment.

Comment 323: We know that gas-powered cars are the 2nd biggest source of emissions in New York State, so to meet the goals of the CLCPA we urgently need to transition to zero-emission vehicles. This rule will help to ensure this transition. Commenter 423.

⁶⁵ <https://www.dec.ny.gov/chemical/86024.html>

⁶⁶ <https://www.dec.ny.gov/chemical/72065.html>

⁶⁷ <https://www.batterycycle.io/what-is-ev-battery-second-life-and-who-are-the-players/#:~:text=Types%20of%20EV%20battery%20second-life%20applications%201%201.,to%20meet%20power%20requirements.%20...%202%202.%20Off-grid>

Response to Comment 323: The transportation sector is the second largest source of greenhouse gas emissions in New York State as calculated using the requirements of the CLCPA. The goals of the CLCPA are beyond the scope of this rulemaking. See, however, Response to Comment 311-314.

Comment 324: We have an opportunity to be among the first states in the Northeast to join California in adopting the most ambitious vehicle standards in the nation. It's time for New York to continue to step up as a climate leader. Commenter 498-906, 908-925, 927-1103, 1105-1182, 1958-1961, 1963-1970, 1972, 1974-1974, 1977, 1983-1985, 1987-1994, 1996-2000, 2002-2019, 2021-2027, 2029-2038, 2040-2041, 2043-2045, 2047-2056, 2058-2062, 2065-2066, 2068-2072, 2127, 2249, 2302, 2346, 2352, 2383, 2512, 2531, 2539, 2575.

Comment 325: I am writing as a concerned citizen of New York, and of the planet. We have an opportunity to be leaders in this country, demonstrating that our commitments to lowering our carbon footprint can be accomplished without detriment to our robust economy and industries. Commenter 907.

Comment 326: At this time, I thank you for your consideration of my letter and my recommendations. Please understand that our state has an opportunity to be among the first

states in the Northeast to join California in adopting the most ambitious vehicle standards in the nation. Commenter 1162.

Response to Comments 324-326: The Department thanks you for your comments.

Comment 327: We need cleaner transportation. Commenter 905.

Comment 328: It is my hope that you will act quickly to transition to cleaner transportation.
Commenter 1074.

Response to Comments 327-328: The Department agrees and thanks you for your comments.

Comment 329: Please act to have cleaner air for Long Islanders and all Americans. Commenter 968.

Response to Comment 329: The Department thanks you for your comment.

Comment 330: Gas powered cars must still be available. In prolonged power outages at least they will run on their "full" tank. Commenter 1314, 1318.

Comment 331: The materials provided in the proposed amendment are insulting. The rationale for the program boils down to California did it so we can too. There is no consideration of the potential that circumstances in New York differ from California. The two-county Buffalo–Niagara Falls Metropolitan Statistical Area (MSA) had an estimated population of 1.1 million in 2020 and can be crippled by winter storms. Blizzard conditions with winds excess of 70 mph and heavy lake effect snow in the Buffalo area on Christmas Eve 2022 resulted in devastating impacts across the Buffalo area. Battery electric vehicles (BEV) mandated by this proposed rule do not do well in those conditions. Thirty-nine people died in this storm and more surely would have died if electric vehicles were the only option available. California has no similar major metropolitan areas subject to this type of extreme weather so relying on their analysis and suggesting that it will work here too is disingenuous at best. Commenter 2573.

Response to Comments 330-331: Under ACC II, new gasoline fueled vehicles will be available from vehicle manufacturers until the 100% ZEV sales requirement in 2035. Although power outages are generally beyond the scope of this rulemaking, the Department notes that power outages are a concern for all vehicles regardless of fuel type as fuel pumps require electricity to dispense fuel. A gas station will not be able to dispense fuel during a power outage unless it has a standby generator. Also, EVs may be less impacted by power outages than internal combustion engine vehicles (ICEVs) due to differences in operation and fueling practices. Most EVs are currently charged at home, usually overnight, to maintain full operating range. EVs may also be charged utilizing solar power generation or fossil fueled generators. Most ICEVs are not refueled every day and would likely not have full operating range in a power outage.

Furthermore, an EV may have an advantage in an emergency since EVs consume little energy when sitting in traffic, whereas ICEVs are consuming fuel constantly to idle the engine. EVs are arguably safer for occupants if the vehicle becomes stranded in blizzard conditions. As previously mentioned, the constant idling of ICEVs presents a lethal threat to occupants of stranded vehicles. Snow piling up and burying the vehicle's exhaust pipe allows vehicle exhaust, particularly carbon monoxide, to enter the vehicle cabin. Elevated carbon monoxide levels may lead to loss of consciousness and eventually death. That cannot happen in EVs due to the lack of internal combustion engines and associated noxious emissions. EVs also have the added benefit of instantaneous torque at low speeds, which may alleviate wheel spin in adverse snowy conditions and prevent the vehicle from becoming stranded in the first place.

Comment 332: The bill doesn't go far enough, it doesn't address the PM_{2.5} emissions from tires, which account for up to 50% of carbon pollution emitted from cars. Bigger SUVs, bigger tires = more pollution, even if the SUV behemoths are all electric.

<https://www.emissionsanalytics.com/news/pollution-tyre-wear-worse-exhaust-emissions>.

Commenter 1466.

Response to Comment 332: The Department disagrees with commenter's assertion that larger vehicles, particularly larger electric vehicles, will have inherently higher fine particulate matter (PM_{2.5}) emissions than ICEVs. While vehicle tires are beyond the scope of this rulemaking, the Department notes that tire PM is an issue with all vehicles regardless of vehicle weight or

propulsion system. It is incorrect to assume that PM_{2.5} emissions will automatically increase due to adoption of ACC II and the increasing percentage of electric vehicles in use. Some electric vehicle components, such as battery packs, may be heavier than ICEV components, but OEMs may offset this increased weight by reducing the weight of other components or the vehicle body. OEMs may also opt to reduce tire wear, and associated PM, by utilizing increased regenerative braking and improved tire designs. The ACC II regulation is estimated to reduce PM_{2.5} emissions in New York State by approximately 1,373 tons by 2040.⁶⁸

Comment 333: The ACCII regulations offer additional benefits. These include consumer assurance measures (for example, minimum battery warranties and durability standards) and long-term market certainty. Commenter 2028.

Response to Comment 333: The Department agrees with this comment.

Comment 334: Perhaps of even greater concern, battery-powered vehicles using today's technology requires lithium, a resource where only 1% of the global supply comes from the United States. Geopolitical issues make this supply tenuous, and I am concerned about us making our transportation system so heavily dependent upon a resource that we need to import. Commenter 2064.

⁶⁸ Revised Regulatory Impact Statement. Table 31. Page 48.

Response to Comment 334: Mining and sourcing of minerals for battery components are beyond the scope of this rulemaking.

The Department recognizes that New York's adoption of ACC II, and the increased ZEV sales mandate, will likely increase demand for various metals including lithium, graphite, cobalt, nickel, copper, manganese, chromium, zinc, and aluminum; however, New York's rules are not solely responsible for an increase in demand for these metals. It is also important to note that ICEVs require aluminum alloys, magnesium, iron, and steel, which are all metals that already require extensive mining with similar physical impacts to the environment, including loss of habitat, agricultural resources, and forests; water, air, and noise pollution; and erosion.

The federal government recently enacted the Inflation Reduction Act (IRA) in 2022, which provides significant tax credits for new and used ZEVs and electric vehicle charging infrastructure. The IRA also heavily incentivizes domestic raw material production or imports from countries with a free trade agreement with the United States, as automakers must comply with the new sourcing requirements to receive full tax credits. The impacts of the IRA are difficult to project at this time, but it should serve to move mining to more geopolitically friendly countries with more stringent environmental and labor standards.

Comment 335: Since CA has already taken the lead on this, car manufacturers will need the cars sold there to meet their state standards. Adding NYS to the ACCII rule will give car manufacturers even more incentive to stop carbon emissions in their cars. Commenter 2499.

Comment 336: I would like New York to support a faster move to clean cars and to reduce fossil fuel use. The more states that adopt this, the more pressure on the auto industry to respond.

Commenter 2530.

Response to Comments 335-336: Vermont, Oregon, Washington, Massachusetts, and Virginia have also adopted California's ACC II standards, and more states are considering or completing adoption this year. California and the Section 177 states account for approximately 35-40% of national vehicle sales.⁶⁹ An increasing number of states adopting California's standards provides manufacturers with regulatory certainty and economies of scale.

Comment 337: Assuming average vehicle sales and scrappage rates and an average annual increase rate in ZEV sales to achieve 100 percent market share, a 2035 ZEV mandate could convert 16.5 percent of the fleet by 2035 and 60 percent by 2050. This means 83.5 percent of vehicles in operation in 2035 will be primarily powered by liquid fuels. Think about that. Even under an optimistic scenario of achieving a 100% market share of annual vehicle sales in 12 years, less than one-fifth of the nation's overall vehicle fleet will be EVs. That means more than 83% of all the cars and trucks on the road will still require gasoline or diesel. All that infrastructure has to remain in place at the same time enormous funding for EV charging

⁶⁹ https://ww2.arb.ca.gov/sites/default/files/2022-05/%C2%A7177_states_05132022_NADA_sales_r2_ac.pdf

infrastructure is required. The proposed amendment should document the costs for charging infrastructure and maintaining the existing system. Commenter 2573.

Response to Comment 337: All new light-duty vehicle sales will be required to be 100% ZEVs by 2035 to comply with the requirements of ACC II and Chapter 423 of the Laws of 2021. That is not an ‘optimistic scenario,’ rather it is a regulatory requirement for OEMs. Any OEM that does not meet the sales requirement must utilize the regulation’s compliance options (such as banked credits) or pay fines for noncompliance. The Department notes that commenter’s assertions regarding fleet turnover was not supported by documentation or citations. However, the assertion that only 16.5 percent of the New York’s fleet by 2035 and 60% by 2050 will be ZEVs is low given the regulatory and legislative requirements mentioned above. Furthermore, the Department estimates that the average useful life of a light-duty vehicle averages around 12-15 years, meaning that the fleet will be almost entirely transitioned to ZEVs by 2050.

The composition of the vehicle fleet on a national scale, costs of charging infrastructure, and maintaining existing fuel distribution infrastructure are beyond the scope of this rulemaking.

Comment 338: The Climate Act mandates a full life-cycle analysis of fossil-fuel use. On the other hand, the life-cycle impacts of the so-called “zero -emissions” alternatives are ignored. BEVs may not have emissions when operating but the volume of materials needed to access the rare earth elements necessary for those technologies certainly have environmental impacts when mined and processed. The vehicles mandated by proposed Part 218 require between 1,000 and

2,000 percent more minerals to deliver the same amount of power and on the order of 400% more metals to deliver the same vehicles. The consequence of this is that many more materials will be required. The Part 218 Regulatory Impact Statement should address where the materials necessary for BEVs come from and whether there will be sufficient quantities available for the New York transition.

As a result of the incomplete consideration of life-cycle impacts, the Climate Act did not address the trade-offs of the so-called “green” technologies. This has a specific impact relative to the proposed amendment that DEC must address. The modern gas automobile is one of the most highly recycled products in human existence. After initial creation, each vehicle has an average life cycle of about 20 years. At that point it is dis-assembled and its parts are sold used in a global used parts chain, which is the most profitable part of the whole life cycle. This means almost all auto components worldwide do not require new mining/manufacturing, etc. – which means they have one of the lowest long-term life-cycle environmental impacts of most things global consumers use. In comparison, a Tesla has a plastic body, and a battery assembled from thousands of 18650-type cells, so it is extremely hard to recycle. The body can’t be recycled. According to recent Tesla documents the batteries are “valorized” by grinding them up and putting their waste in construction cement. In contrast, Toyota/Honda hybrid batteries are easily re-used and recycled. Commenter 2573.

Comment 339: What are the waste disposal impacts of the proposed amendment? Commenter 2573.

Response to Comments 338-339: Mining and sourcing of minerals for battery components are beyond the scope of this rulemaking. See also Response to Comment 334.

Battery recycling is also beyond the scope of this rulemaking. See also Response to Comment 321.

Commenter asserts that Tesla vehicles have plastic bodies and therefore are unable to be recycled. Tesla vehicle panels are predominantly aluminum castings and aluminum is easily recycled. As previously mentioned, EVs and ICEVs have similar construction, utilize similar materials, and have comparable upstream impacts. There is no reason to assume that the vast majority of EV components will not be recycled like their ICEV counterparts. New York is aware of the need to increase the availability of battery recycling within the state.

Comment 340: NYSDEC should consider the implications that a strategy focused on a singular technology may have on community decision-making, consumer choice, and the unintended consequences that reliance on electrification may present, including foreign supply chain disruptions and forced labor in the production of the raw materials needed to manufacture batteries.

California policymaking is hardly an unqualified success story. Its climate policies—like the ZEV sales mandates—have had major inflationary impacts on gasoline and energy prices, as well as negative impacts on jobs in certain industries that are directly related to traditional fuels and vehicles. While often lauded as the measuring stick for GHG emission reduction policies, California’s transportation fuel prices are now the highest in the nation, averaging approximately \$4.62 per gallon of gasoline. According to a 2021 Report from the California Public Utilities Commission, “it is already cheaper to fuel a conventional ICE vehicle than it is to charge an EV” in the San Diego Gas & Electric Co. service area. The California Energy Commission projects that both commercial and residential electricity prices will continue to rise, reaching over \$8/gasoline gallon equivalent (“GGE”) by 2026 for the residential sector and nearly \$7/GGE for the commercial sector. If environmental justice is truly a commitment for New York, it should carefully consider the criticisms of California’s climate approach, such as those leveled by The Two Hundred, which point out the disproportionate impacts to working and minority communities.

As California has faced rolling blackouts and historic energy prices, Governor Newsom in his May 2022 state budget proposal, has pivoted to the use of traditional fuel infrastructure to ensure system reliability to protect against outages.

Moreover, unworkable ZEV sales mandates put New York at risk of missing out on real carbon reductions available through incentivizing low-carbon liquid fuels and by encouraging the development of emerging carbon removal technologies. Commenter 4426-4427.

Comment 341: Second, federal policy explicitly supports “the modernization of the Nation’s electricity transmission and distribution system to maintain a reliable and secure electricity infrastructure that can meet future demand growth.” 42 U.S.C. § 17381. The ACC II program conflicts with this policy by introducing material security and reliability risks to New York’s electricity grid, and to the grid of other states who may adopt ACC II.

The rapid electrification of the transportation sector will both substantially increase electricity demand in New York and other states who may adopt ACC II and increase dependence on electricity services, amplifying the risk that the grid will be targeted for either physical or cyber-attacks. A 2021 Government Accountability Office Report found that “[t]he grid’s distribution systems face significant cybersecurity risks—that is, threats, vulnerabilities, and impacts—and are increasingly vulnerable to cyberattacks.” According to the report, these risks “are compounded for distribution systems because the sheer size and dispersed nature of the systems present a large attack surface.” As demand increases due to accelerated electrification, grid security will pose a greater challenge due to additional resource buildout. Further, the report found that increased use of networked consumer devices that are connected to the grid’s distribution systems—including electric vehicles and charging stations—also potentially introduce vulnerabilities because “distribution utilities have limited visibility and influence on the use and cybersecurity of these devices.” ACC II will therefore introduce new vulnerabilities to the nation’s distribution system by significantly increasing the use of consumer devices.

In addition, the increased demand for electricity under New York's proposed adoption of ACC II will worsen existing instabilities in New York's and in the grids of states that may adopt ACC II, compromising grid reliability in direct contravention of federal policy. New York's grid reliability is already under threat. ACC II will increase demand despite existing shortfalls, undermining federal requirements targeting increased grid reliability. Commenter 4426-4427.

Response to Comment 340-341: The ACC II regulation does not restrict consumer choice. Rather, ACC II increasingly expands the number of EVs available for consumers as the market continues to transition to an EVs. Also, new LEV IV compliant ICEVs will be available until model year 2035. In-use ICEVs may continue to be used after 2035. The ACC II regulation does not ban the production, transport, sale, or use of petroleum-based fuels. The ACC II regulation does not mandate that all vehicles be electric. Hydrogen fuel cell electric vehicles are also a compliance option should an OEM choose to pursue that path. A growing number of electric vehicle models in various vehicle classes and price points are available today and more are expected within the regulatory timeframe. Electric vehicles are expected to have comparable, if not better, performance than ICEVs and will offer a range of capabilities to suit consumer needs. Supply chain disruptions, mineral sourcing, and labor are beyond the scope of this rulemaking.

The Commenter states that California's regulations are "...hardly an unqualified success story..." and alleges that those regulations responsible for record high fuel prices. While fuel prices are beyond the scope of this rulemaking, the Department notes that the allegation regarding fuel prices is a gross simplification that ignores additional factors including ongoing

global supply issues resulting from COVID pandemic lockdowns, diminished domestic oil production, and the overall state of the economy. In fact, retail gasoline prices started a steady rise from an average of \$2.42 per gallon in January 2021 and culminated with record high prices exceeding an average of \$5 per gallon in June 2022.⁷⁰ This trend predates adoption of ACC II in California or any other Section 177 state. Reports note that the oil industry recorded record profits at the same time the U.S. was experiencing record high prices at the pump.⁷¹

The Department also disagrees with Commenter's assertion that California regulations have been unsuccessful. California has a long history of developing successful motor vehicle emissions control programs. California's efforts routinely lead to adoption on a federal level by the U.S. EPA - exactly as Congress envisioned when they gave California the authority to develop its own standards and programs. California's new vehicle emissions standards were, and continue to be, technology forcing while still being feasible. Standards have been reviewed over the years in response to advances in technology or concerns about feasibility and California's regulations are revised or updated as necessary.

Electricity rates and EV charging infrastructure are beyond the scope of this rulemaking. However, the Department is aware of these concerns and is engaged with other agencies and authorities to address these issues. New York's electric grid is expected to be able to handle the increase load required by increasing electrification of the transportation sector. Shrinking

⁷⁰ https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=p&s=emm_epm0_pte_nus_dpg&f=m

⁷¹ <https://www.cbsnews.com/news/exxon-chevron-shell-conocophillips-record-profits-earnings-oil-companies-most-profitable-year/>

reliability margins are a concern which various state agencies and authorities are aware of.⁷²

New power transmission projects are planned to deliver electricity from renewable sources northern and western New York to downstate residents. These include 200 miles of new transmission from northern New York (Smart Path Project); a 150 mile, \$1.2 billion transmission upgrade from northern and western New York to downstate New York (AC Transmission Project); \$181 million transmission upgrade (Niagara Power Project); and proposals for offshore wind projects. The New York Independent System Operators (NYISO) are also exploring interconnection issues related to increasing clean energy sources, as well as regional transmission planning to support grid reliability and resilience.⁷³

Biofuels are beyond the scope of this rulemaking. The Department notes, however, that ACC II does not prohibit the production, sale, or use of biofuels.

Carbon removal technologies are also beyond the scope of this rulemaking.

Beyond the Scope

⁷² <https://www.nyiso.com/documents/20142/2223020/2022-Power-Trends-Report.pdf/d1f9eca5-b278-c445-2f3f-edd959611903?t=1654689893527>

⁷³ <https://www.nyiso.com/documents/20142/2223020/2022-Power-Trends-Report.pdf/d1f9eca5-b278-c445-2f3f-edd959611903?t=1654689893527>

Comment 342: We are in the past major installers of EV Chargers (sic), and when NYS sent the large majority of NYSEDA (sic) money to New York City and the funds dried up the bottom fell out with installing EV Chargers (sic). Commenter 1.

Comment 343: With an understanding of the toxic pollution and threats to planet sustainability caused by our transportation sector, I bought my first hybrid car more than twenty years ago, a hybrid-electric five years ago. Commenter 3.

Comment 344: It has been dispiriting to see the automobile industry continue to build fossil-fueled vehicles at a time when climate anxiety across the globe has been increasing. Commenter 3.

Comment 345: Fossil fuel interests will, of course, oppose the move vigorously, as they have, with great deception, ever other effort to transition to a clean energy economy. We cannot let those voices have continued power over our decision making. Commenter 3.

Comment 346: There is a stark choice involved here. Either we, as part of the global society, do our part to correct the devastating trajectory of our past and current neglect of our environmental heritage or we will suffer the consequences. The consequences are much more easily avoided than encountered. The choice is ours, the choice is going to be made now, and there will be no going back. Commenter 4.

Comment 347: I am reviewing Part 218 Advanced Clean Cars II, which in part state, “adopted heavy-duty Advanced Clean Truck (ACT) standards in 2021”, which is to be implemented starting in 2026. What would the adoption of ACT look like for heavy duty vehicles, i.e. Class 6-8, in the state of New York? I am already seeing a difference in start of implementation dates, since CARB starts minimum sales percentages of ZEVs in 2024, and New York starts in 2026. Will New York require a separate submission package of documents that CARB uses for ZEV/ZEP certification, or will New York accept proof of CARB certification from California? Is the CARB Executive Order also required? Also, will funding similar to California’s HVIP program be available for CARB certified vehicles? It’s certainly interesting to promote clean trucks, and as one of the OEMs leading the charge for BEV truck last mile delivery, we are excited to be in this market. Commenter 6.

Comment 348: As a parent and doctor of public health, I am well aware of climate change and its ongoing and future impacts on the children of New York. We need to do all we can to fight climate change. We can set an example for other states to follow, and push the economy in the right direction. Commenter 7.

Comment 349: I drive a plug-in Hybrid (RAV4 Prime) but with millions of New York car and truck owners, we can't make the progress needed solely by our family being proactive. Commenter 42.

Comment 350: The above was written by someone other than me. But this is important. Please do it. Incidentally, when I go to the Gunks, the Catskills or elsewhere, I see camper vans. I cannot afford one but would like to have one. But only if it were electric because I do not want to harm the environment. If you require vehicles to be electric, then electric cars will be made. Of course, then we need to figure-out how to make all the electricity and the batteries. I guess we are back to nuclear. Fusion energy would be great but I am 73 and have been hearing about fusion energy since I was a little kid at UC Berkeley in the sixties. I hope the federal government funds fusion energy. For now, I don't see how we can manage without nuclear, do you? Geothermal, solar, wind and motion do not generate enough electricity. Commenter 60.

Comment 351: It is egregious that car traffic is prioritized over the lifespans and health of communities near the George Washington Bridge, and other polluted areas of our city. Prioritizing private car travelers' wants over basic health needs, basic environmental needs, and city beautification improvements is dated and harmful policy strategy. The health and economic prosperity of New Yorkers will improve when car traffic is reduced, streets are converted to foot and bicycle traffic, and parking garages are converted into low-cost housing and other facilities. Commenter 71.

Comment 352: The climate crisis is upon us. Scientists are predicting dire consequences if we fail to act. All we can do is stop emitting greenhouse gases into the atmosphere and hope we do it soon enough to save a future for our grandchildren. Please act with the urgency necessary to save life on the planet. Commenter 73.

Comment 353: My husband and I have purchased and proudly driven a hybrid, and now an EV vehicle! We need everyone to do the same so a huge difference will be made! Commenter 90.

Comment 354: FYI, I lived in NYC near East River Drive 35 years ago. While my apt. was on a higher floor, near the end of my time in NYC, I had air purifiers going all day & had a hard time walking around town - the worst was taking subways. I am sure it is worse now. Commenter 116.

Comment 355: I would be grateful for your thoughtful and thorough consideration of this message. Commenter 154.

Comment 356: We must fight climate change. The weird weather this winter is proof enough. Commenter 183.

Comment 357: Changing how our distance vehicles work to eliminate toxic emissions (sic) is necessary for changing the environment to one that is not constantly poisoning the air that we breath. Industry will not change until it becomes economically to its benefit. It is only be (sic) changing the law, that we can force business to protect the environment and preserve our lives. The planet will continue to exist and change, whatever we do. But if we do not preserve a

healthy environment soon enough, we will destroy the ability of our species to survive.

Commenter 193.

Comment 358: But electric cars are NOT the answer! We MUST follow science and VASTLY REDUCE the energy intensiveness of transportation. With the advances in networking and communication initiated by, and tested by, the pandemic, it has been shown that there is considerable hope for us to head down this necessary path. We need to supercharge funding for promotion of bicycle use, and also for incentivizing more sustainable living patterns, in part by totally new "property tax" structure and vehicle weight-proportional road use fees! (NO fees for human- powered vehicles or nearly so (i.e.human-powered bikes or extreme lo-power e-mopeds), etc.), much, much lower fees for slower, less polluting e-bikes and carts, increasing to very high fees for 'SUV's or, especially, dangerous cars. Alll (sic) vehicle inflicted deaths must be adequately prosecuted! (injury and death are VERY DEADLY forms of pollution, indeed!).

Commenter 197.

Comment 359: The climate crisis is an overarching concern in my life. I feel that almost every other problem is fixable, but I am worried that we are reaching a tipping point with the climate crisis. I am personally trying to do everything I can to reduce whatever negative impact I might have in my daily life. Commenter 209.

Comment 360: I definitely support EV cars, I have been driving a 2017 Chevy Bolt EV for 5 1/2 years, I have put 61,000 miles on it. Once a week I am driving to Vermont or Mass for work.

Charging my car has always been easy, especially in Vermont. A (sic) EV charger is never far away in Vermont. Commenter 231.

Comment 361: I currently drive a hybrid in order to reduce the air pollution and the use of fossil fuel. My next car will be an EV. Commenter 245.

Comment 362: I applaud the steps that NY State is taking in other transportation sectors as well, like trucking, to speed this essential transition from fossil fuels. Commenter 327.

Comment 363: I really want my next car to be an EV!! Commenter 373.

Comment 364: If, in addition, our legislature passes S4977/A3779 to permit direct sales of vehicles--the approach used by many EV manufacturers--this will add to DEC's efforts and make the transition even smoother. Commenter 423.

Comment 365: Not only will it help us in the battle against catastrophic global heating, but it helps New York get closer to the goals of the CLCPA - a good law, but so far without the funding and enforcement mechanisms that would make it a reality. Commenter 431.

Comment 366: I'm extremely concerned about the consequences of climate change. This is the type of action we have to take. I have a hybrid plug in Chevy Volt myself (2017), but we need dramatically more people driving low emission cars. Commenter 438.

Comment 367: Transitioning out of fossil fuel vehicles is urgent and New Yorkers can rise to the challenge. In fact, we demand it! Commenter 441.

Comment 368: I am very much looking forward to the positive health effects (not to mention the pure enjoyment) of breathing cleaner air as we transition from fossil fuels. It is also an imperative that we eliminate fossil fuel use as soon as possible to limit the climate changes associated with carbon pollution. Commenter 443.

Comment 369: We need to move on this ASAP - our future is at stake! Commenter 455.

Comment 370: There is no planet B! Commenter 465.

Comment 371: I recently lived in an apartment located next to a very busy city street in Troy, New York, and was really surprised by the amount of black "dust" from the traffic which got into my home. It was impossible to keep the place clean - but far worse, I'm sure, were the tiny toxic particles and noxious fumes from the vehicles. Commenter 478.

Comment 372: I live in a neighborhood which has the third worst air pollution in NYC, as a direct consequence of the administrative decision, over the course of four mayoral administrations to not only ignore proper traffic control--particularly idling--but to actively encourage vehicles into Manhattan. Much of this pollution could be controlled by rescinding policies and practices, particularly of the Giuliani and Bloomberg administrations, and actively enforcing driving, idling, and commercial restrictions on residential streets. This is problematic, however, given that the NYPD are primary abusers of traffic safety, and ignore abuses by commercial traffic and private vehicles. In fact, Guliani ordered the NYPD to "not interfere with commerce", and Bloomberg kept and advanced this policy. Nor is fracked gas a solution, as seems to be the current fad and fantasy; it is not a "clean" fuel, on any level. Notably, fracked gas from the Marcellus shale contains radon, adding yet another pollutant. Commenter 492.

Comment 373: We are running out of time to address the climate crisis. With each year of inaction, the consequences of unchecked global warming pollution grow more severe at the expense of New Yorkers across the state. Severe droughts, and heat waves—the list goes on. Commenter 498-755, 757-906, 908-925, 927-1019-1103, 1105-1182, 1958-1961, 1963-1970, 1972, 1974-1975, 1977, 1983-1985, 1987-1994, 1996-2000, 2002-2019, 2021-2027, 2029-2038, 2040-2041, 2043-2045, 2047-2056, 2058-2062, 2065-2066, 2068-2072, 2127, 2249, 2302, 2346, 2352, 2383, 2512, 2531, 2539, 2575.

Comment 374: As someone who has experienced the destruction due to climate change, I am strongly urging the DEC to adopt these regulations because our state, our country and the world are running out of time to address the climate crisis. With each year of inaction, the consequences of unchecked global warming pollution grow more severe at the expense of New Yorkers across the state who are facing more violent hurricanes, more severe droughts, worsening heat waves and loss of property and family members. Commenter 1162.

Comment 375: I am thrilled (and proud of our Governor) that NY State is requiring that all new school bus sales be electric by 2027. Now we have to move across all vehicles. Commenter 553.

Comment 376: Based on recent climatic anomalies and extremes, I think we can agree on the existential need to mitigate climate change. Commenter 600.

Comment 377: I have been noticing more EVs on the road, trucks not so much, but we need to do even more. Commenter 602.

Comment 378: I drive a (sic) EV and generate all my power needs with my own rooftop solar panels. This is a critical issue. Commenter 612.

Comment 379: As a long-time Manhattan resident suffering from emphysema, I am particularly aware of the health impacts of vehicular pollution on public health and the environment.

Commenter 616.

Comment 380: We all know what needs to be done. Please do it. Commenter 631.

Comment 381: The only good thing about Covid was that with almost no traffic, the air was much cleaner—we could actually smell (and hear) the difference! Commenter 650.

Comment 382: This is an issue which will affect the children and grandchildren of countless human beings. Please speak for the voices yet to come. Commenter 666.

Comment 383: I am a concerned resident, extra concerned because I live next to part of the Brooklyn Queens Expressway, full of trucks, and in a neighborhood cloggesd (sic) with school buses and delivery and moving trucks. Commenter 722.

Comment 384: Our children and grandchildren will thank us. Commenter 727.

Comment 385: None of our grandchildren can wait any longer for real action. We are decades behind where we need to be for them to have a sustainable planet. Commenter 749.

Comment 386: I am a resident of Mount Kisco and a member of our Climate Smart Communities Task Force. Our village is working with ICLEI to create a climate action plan. The success of our local efforts will be related to what New York does at the state level. Commenter 756.

Comment 387: We have no time to lose- every new Internal Combustion Engine vehicle that comes on the road will be polluting and emitting greenhouse gases for ten years or more. Commenter 775.

Comment 388: As a concerned resident and the owner of low-emission vehicles since the 1990's, I have reluctantly come to believe that many of my fellow citizens will adopt non- or low pollution cars or trucks ONLY when it is mandated by law. Commenter 780.

Comment 389: Even with pollution controls, gasoline powered vehicles contribute to many health issues and many causes of mortality, as well as global warming. Diesel engines (sic) are particularly worrisome. They spew some of the most toxic and carcinogenic compounds known into the atmosphere on a regular basis. Diesel transit and school busses regularly expose commuters, schoolchildren and bystanders to these disease-causing substances. Commenter 848.

Comment 390: We've waited too long for cleaner vehicles so now is the time to transition to cleaner transportation. Commenter 855.

Comment 391: "The Age of Fossil Fuels" is OVER. Commenter 857.

Comment 392: Heavy weight trucks on highways, bridges and local streets are destroying road beds and should be restricted. Perhaps we should go back to moving merchandise by rail. (After safe brake systems are installed.). Commenter 880.

Comment 393: waiting just makes it harder. Commenter 918.

Comment 394: save earth. Commenter 919.

Comment 395: I am in New York, or from the financial district of lower Manhattan. Commenter 920, 1518, 1971.

Comment 396: Please be in the vanguard for the environment. Commenter 922.

Comment 397: I am the proud owner of a new all-electric car. Commenter 935.

Comment 398: I am concerned for future generations, especially our grandson. Commenter 968.

Comment 399: Got to do it. Very simple. It's one of the things we've got to do. Commenter 970.

Comment 400: Do it for my grandsons and all our precious children. Commenter 998.

Comment 401: As a concerned resident of NYC, we already have far too much pollution on our air! Commenter 1021.

Comment 402: As a young person who is incredibly concerned about the climate crisis and what it means for our future. Commenter 1076.

Comment 403: NOTHING is more important than CLEAN air, water and soil. Commenter 1090.

Comment 404: This is particularly relevant, since idling is a huge problem in NYC. Commenter 1144.

Comment 405: The Union of Concerned Scientists has organized the following message and asked me to forward it to you. New York does a lot right. A move of this sort would be appropriate. Commenter 1156.

Comment 406: I strongly believe that doing all we can for human health and safety, wildlife and the environment, and mitigating climate change are all very critical issues. Yes, the message below that I am sending you did come to me from an organization that I support, and it's also one whose information I trust. Please know that I have read it entirely, carefully, and that I agree with it fully, - in fact, I could NOT have said it better! Commenter 1159.

Comment 407: I am writing as a New York physician and public health/environmental protection advocate who has experienced the danger and destruction due to climate change and strongly supports and only uses renewable wind and solar energy to power everything in my apartment. As our state, country and the world are experiencing the continued increase in violent storms, and wildfires with increased loss of life due to the climate change disaster, the time to transition to 100% use of renewable energy in our homes and to power our modes of transportation is now with no more time to waste. Commenter 1162.

Comment 408: My dream is to someday soon, go outside and fill my lungs with clean air. So simple, yet impossible now. Commenter 1273.

Comment 409: We cannot afford the luxury of delay. Please treat this with the seriousness it deserves. Our lives depend on it, as do the lives of our descendants. Commenter 1273.

Comment 410: We have been warned for decades of the impact of climate change and we have been seeing the impact in the past decade more and more drastically, in the US and around the world. Commenter 1276.

Comment 411: Busses, school buses, trains and cabs/ personal transport vehicles should all be required to run on zero-emission fuel by now. If a tiny country such as the Netherlands can do it, how come we can't? Commenter 1276.

Comment 412: Hi, As (sic) one of the largest States in the Union I think that NY has to be a leader. Sadly, because of such diverse interests (mainly financial and control/power), without legislation we can't adopt the right changes to protect our degrading environment. Just look at our severely outdated container laws, and the plastic waste that lines our roadsides and fills our landfills, which will persist for centuries. Commenter 1279.

Comment 413: In addition to the availability of electric vehicles the infrastructure for charging those vehicles is necessary. Commenter 1290.

Comment 414: With every new piece of information about how much time we DON'T have left to address a total climate catastrophe, this rule would be a big step in the right direction. NY is a very populated state in certain areas and switching to cleaner power would not go unnoticed by every living thing. Commenter 1309.

Comment 415: Farm equipment will be more reliable on gas or diesel engines. Electric stoves are of no use in power (sic) outages, and people may be tempted to cook on wood or charcoal burners inside which is a dangerous fire hazard. Commenter 1314, 1318.

Comment 416: Once we past the point of no return with the climate, there will be no coming back. We need to take bold action now. Commenter 1325.

Comment 417: It is well past time to move in this direction. Automobile lobbyists should not be dictating policy/law. Commenter 1368.

Comment 418: i (sic) AM CONCERNED ABOUT THE EFFECT OF ELECTRIC CARS: DIRTY ELECTRICITY GENERATION AND TRANSMISSION, USE OF RARE EARTHS, AND THEIR MINING. SO MANY COMMERCIALS SHOW OFF ROAD TRUCKS TEARING AROUND THE WILDERNESS. HOW WOULD THEY GET RECHARGED?

Commenter 1465.

Comment 419: Here in Syracuse we have been discussing removing the I-81 raised highway in downtown and establishing a ground-level grid. Having more electric vehicles and electric buses will help alleviate concerns. Commenter 1491.

Comment 420: So many people drive cars on Long Island. It is the best way to get most everywhere. Busses don't go everywhere, & taxis and ride shares can get expensive. If there were more electric cars, there would be less air pollution. Commenter 1519.

Comment 421: It has been decades since the scientific community alerted and warned us about climate change and its contributing factors. It does not serve our benefit to wait to change what we can to eliminate our contribution to the process. In the end, the transition to doing what is necessary to protect the earth is inevitable. The sooner we act, the better. Commenter 1524.

Comment 422: No more smog stinking up our world! Commenter 1548.

Comment 423: My home community has experienced devastating extreme storms over the past two decades, which were made more intense because of climate change. We must be doing everything in our power to reduce greenhouse gas emissions and mitigate this crisis. Commenter 1565.

Comment 424: IN THE RECENT PAST, I HAD AN UNSETTLING, AERIAL VIEW OF DIRTY BROWN AIR OVER THE MIDDLE OF LONG ISLAND. I DO NOT BELIEVE THIS WARNING WAS COINCIDENCE: THE MASS RAN RIGHT ALONG THE PATH OF THE LI EXPRESSWAY. Commenter 1612.

Comment 425: I hope that education of the public regarding electric vehicles, the standardization of charging stations and increased availability of them as well as the increased use of EVs as government vehicles will be prioritized. Two months ago I (sic) bought a new car—a hybrid. I had considered getting an EV but I needed a car in a hurry (my old one ‘died’ suddenly), wasn’t comfortably knowledgeable re EVs, had to deal with the lack of EV selection available, etc. Bottom line, please help all of us to be more environmentally aware, informed, and have options to make a difference. Commenter 1617.

Comment 426: This is an urgent issue that will impact all of us. It will not go away and will only grow worse. We must not willfully close our eyes to the future. And that is what seems to be happening as we have to urge common sense in this regard. Commenter 1636.

Comment 427: And the extraction, processing, storage and transportation of these fuels contribute heavily to environmental pollution everywhere. Commenter 1638.

Comment 428: The climate can't wait! Commenter 1674.

Comment 429: I have been driving electric since 2010 and I believe that once your constituents learn of the convenience of home and at work charging, the cost savings and increased performance of EVs, they will thank you for having passed this law. You might also consider incentives nudging employers into making low cost or free job site charging available to speed

adoption. This does not have to be expensive fast charging, can be level 2 charging to provide just enough in an 8 hour shift for the commute home. Say, 60 miles worth, 120kWh, currently about \$12/day per employee EV. Commenter 1681.

Comment 430: Not only passenger cars but trucks, buses, school buses - let's go green with all of them. Commenter 1686.

Comment 431: But very importantly, we must move just as quickly and determinedly to non-fossil fuel sources of electricity. Until we can produce the electricity we need from non-fossil fuel energy we are not solving the problem but just pushing it somewhere else. Commenter 1686.

Comment 432: My family grew up in New York. I do and they all have breathing problems.

I am worried about my 5 grandchildren. Time to stop pollution. New Yorkers don't need cars in our city. We need our bikes, subways, clean buses. We should ban cars if they are Gas guzzlers. Commenter 1726.

Comment 433: The science is clear. Climate change is caused by the human use of fossil fuels. Climate (sic) change is an existential (sic) threat to human society (sic) and to the biota of our planet. Commenter 1816.

Comment 434: During the Nixon Administration, I was employed at part of a Federal study on the effect of air pollution on residents with asthma or heart trouble here in New York City. We called those involved in the study on a weekly basis and compared 'how they felt' to statistics from air monitoring devices set up in their neighborhoods. As an employee, I never learned the outcome of the study. HOWEVER, I am sure that with more cars, it is worse now than it was then. Commenter 1900.

Comment 435: PEOPLE ARE DYING BECAUSE OF UNHEALTHY CARBON AND OTHER POLLUTANTS SPEWED OUT OF CARS--PARTICULARLY THOSE THAT IDLE IN STREETS WHERE THEY ARE NOT MEANT TO BE DOUBLE AND TRIPLE-PARKED. THIS INCLUDES FOOD DELIVERY TRUCKS AND CAR SERVICES WAITING TO PICK UP PASSENGERS. Commenter 1946.

Comment 436: By requiring cleaner combustion engines, as well as ensuring real-world reductions from those engines, these measures can significantly expand on – and complement – the clean air benefits of the previously adopted Advanced Clean Truck (ACT) rule that drives increasing levels of zero-emission trucking in New York. Commenter 1978.

Comment 437: I am very worried about climate change and our dependence on imports of oil. Commenter 1982.

Comment 438: As someone who lives near a fairly heavily trafficked route, I have a personal, immediate concern about particulate matter from cars and trucks. Commenter 1993.

Comment 439: I am an EV driver and I'm never going back to owning a gas car. Commenter 2001.

Comment 440: I have lived in NY since 1979. Part of the reason I moved here was to be in an urban center in which mass transit was the most effective way of moving around. And a city where concerns about pollution (and now global warming) would be taken seriously. Commenter 2012.

Comment 441: In the short term, I wish that greater emphasis was given on making significant improvements to current automotive fuel efficiency. In fact, the current administration recently took steps that were counterproductive to the long term objectives, by temporarily suspending the gasoline tax. Americans have a love affair with fuel guzzling SUVs, but this passion has been historically demonstrated to be attenuated by high energy prices. Perhaps best thing we can do now to lower emissions is to significantly raise the gasoline tax, encouraging the use of more fuel efficient vehicles. HEVs and PHEVs can have a greater role than what is called for in this plan.

Some will, perhaps correctly, argue that drastic measures are required. That indeed is probably true, but then those measures should be much more fundamental. Encouraging people to live in more concentrated areas, building out a better system of public transport, and encouraging mindset changes, including more remote work, greater reliance on non-polluting means of transportation such as bicycles, and reducing highway speed limits can all serve to meet this objective. It is true that we simply cannot go about living as we have in the past, and yet in many ways these proposed rules seek to enable that by only changing out what's under the hood. Commenter 2064.

Comment 442: Let us fight the climate crisis we are in. Commenter 2116.

Comment 443: It's a no brainer really. I'm a recent in-mover to NY State from D.C. who's DELIGHTED to have a vote and an active, rational government. Commenter 2144.

Comment 444: You and your staff already know why we need this legislation. Commenter 2213.

Comment 445: Remember during the worst of the pandemic when we mostly stayed home - how the air pollution cleared significantly, how we saved \$ on gas, & some of us even received & back from our car insurance? Maybe we wouldn't get an insurance refund, but the lack of gas expenses & the cleaner air would continue on & on & on. Commenter 2219.

Comment 446: Please do what you know to be morally responsible. Please help clean and keep clean our planet. Commenter 2220.

Comment 447: Further reduction of pollution and mitigation of climate change could be achieved by greater investment in mass transit and encouragement of more eco-friendly transportation alternatives to the automobile. Commenter 2167.

Comment 448: We cannot continue to drive gas, powered cars when electric vehicles are an affordable choice they must be supported so we can prevent the explosion of more greenhouse gases than living things can survive. Commenter 2315.

Comment 449: I drive an electric car and I would like to make a car like mine affordable for all New Yorkers so that we can all contribute in this significant way to reducing our dependence on climate change promoting fossil fuels. Commenter 2336.

Comment 450: THIS IS VITAL!! Commenter 2329.

Comment 451: THIS MUST STOP!!! Commenter 2329.

Comment 452: TIME IS OF THE ESSENCE!!! WE ARE ALL COUNTING ON YOU TO HELP MAKE THIS HAPPEN - FOR ALL OF US!!! Commenter 2329.

Comment 453: Sadly, we should have moved on this years ago, and I hope it's not too late, but we have to make the transition YESTERDAY!! I live in Rockland County , NY, and last spring I tried to purchase an electric car, but the supply was virtually non-existent (sic), and now some of the incentives are gone. Hopefully production is being ramped up! Commenter 2286.

Comment 454: My hope is that such rules will be accompanied by improvements in the support for EVs. I just bought my second hybrid but i (sic) would have happily purchased an EV if i (sic) felt i (sic) had the education and support to be able to keep the EV in ready condition. Commenter 2224.

Comment 455: Planet needs us to act (sic) now. Commenter 2224.

Comment 456: We want and need to stop destroying our world! Comment 2186.

Comment 457: Our country has known about this problem since before the year 2000, but we are just beginning to consider effective actions. If we don't work seriously on reducing carbon emissions, my kids will have a hot and difficult world to live in. We know what needs to be

done. If we don't get started, nobody else will. Please make a stand for a decent future.

Commenter 217.

Comment 458: Under the Nixon (sic) Administration, I was employed on a weekly basis to call NYC residents with heart disease or asthma, to check on their health. Their neighborhoods (sic) were monitored with air sampling equipment. I AM VERY AWARE OF THE DAMAGE FILTHY AIR CAN CAUSE TO THE LIFE EXPECTANCY OF AMERICANS. PLEASE INSURE THE PASSAGE OF ACIL. Commenter 2145.

Comment 459: Gentlemen, this is a no-brainer. We need your help to save lives and (sic) save species, especially our own human species. Commenter 2428.

Comment 460: We are running out of time to maintain a tolerable world for current and future generations. Commenter 2362.

Comment 461: I urge New Yorkers and my legislators to all we can do decrease carbon emissions now. Commenter 2415.

Comment 462: I live in New York State and am a proud owner of an amazing all electric car. And I love it. I use it for at least 90% of my driving! A hybrid works for the longer distances. Commenter 2453.

Comment 463: We are at a critical time with our Earth. We desperately need to do more before it is too late environmentally. Commenter 2473.

Comment 464: I drive an electric car which I charge at home off of the solar panels on my house. I know not every one (sic) can get to that level of zero emissions but we need to take steps to push the city in that direction. Climate change is the biggest threat to the city and must be forcefully addressed NOW. Commenter 2492.

Comment 465: We must act quickly to have hope in saving our earth. It is expensive to support the change. It is more expensive to be too late. Commenter 2508.

Comment 466: It is a Win - Win for the environment and all people on the planet! Commenter 2513.

Comment 467: Help to safeguard the planet - the only one we will ever have. Commenter 2546.

Comment 468: Too many people suffer from air pollution including my daughter who has asthma. I know first hand how pollution effects not only a family's health but also a family's finances. Commenter 2556.

Comment 469: We have to decr (sic) fossil fuel use. Commenter 2563.

Comment 470: Please do something. We are in a CLIMATE CRISIS! Commenter 2567.

Comment 471: I submitted detailed comments on the Draft Scoping Plan and they were ignored.
Commenter 2573.

Comment 472: The biggest point that New York State must address is that current solar panels, wind vanes, massive utility batteries, and other “green” energy infrastructure is almost impossible to recycle in any manner close to Toyota/Honda life cycle components. In addition, the current “green” energy generation technology consumes huge amounts of water in desert regions (see LATAM “salars”) – and generates millions of tons of global e-waste. Current e-waste comes from “green” industries – which have almost no meaningful, scalable forms of recycling (except ones that require large amounts of energy to melt and re-process tons of glass, plastic, and complex metals). Any post-sale actions of New York are almost irrelevant compared to the total life cycle global environmental insults of current EV, solar, wind, and other “green branded” technologies. Commenter 2573.

Comment 473: Consider, for example, the effects of the relentless push for EVs evident on an industrial village in Indonesia. The people who work at the Indonesia Morowali Industrial Park

call it a “tainted city” because of the dangers and pollution involved in mining nickel at a rapid pace to meet the demand for EVs. Conditions there have led to epidemics of “respiratory problems, sickness, and eye injuries” among residents, as Wired reports. Over half the patients at one local health center come in with breathing difficulties, while a considerable number suffer damage to their eyes. How does this proposed amendment comport to the environmental justice cornerstone of the Climate Act? Commenter 2573.

Comment 474: A recent report from the Union of Concerned Scientists, the Natural Resources Defense Council, and MJ Bradley and Associates showed that if New York pairs the Low NOx Omnibus rule with the Advanced Clean Truck rule (which was already adopted), the Empire State could see more than \$21.4 billion in public health, environmental, and economic benefits in that same timeframe. Commenter 2576.

Comment 475: ACE NY is a not-for-profit membership organization with a mission to promote the use of clean, renewable electricity technologies, energy efficiency, and the electrification of transportation in New York State, in order to increase energy diversity and security, boost economic development, improve public health, and reduce air pollution.

United is a national association of businesses that are making the energy we use secure, clean, and affordable. United works to accelerate the move to 100% clean energy and electrified transportation in the U.S. Advanced energy encompasses a broad range of products and services that constitute the best available technologies for meeting our energy needs today and tomorrow.

These include energy efficiency, demand response, energy storage, solar, wind, hydro, nuclear, electric vehicles, and the smart grid. United represents more than 100 companies in the \$238 billion U.S. advanced energy industry, which employs 3.3 million U.S. workers, including 157,000 individuals in the Empire State. Commenter 2593.

Comment 476: Heavy-duty vehicles represent an outsized share of conventional air pollution from on-road vehicles. Despite diesel vehicles constituting only 4.1 percent of the State's vehicle fleet, 14 heavy-duty vehicles, which are overwhelmingly diesel fueled, account for 46 percent of on-road NOx emissions in New York. Commenter 2617.

Comment 477: The HDO regulations will help to reduce the NOx and PM pollution in New York stemming from the state's medium and heavy duty vehicles. Commenter 2617.

Comment 478: And HDO builds on decades of effort both to control transportation sector emissions and also to limit smog-forming nitrogen oxides that contribute to unhealthy air in the New York metro area. Commenter 2617.

Comment 479: New York's M/HD vehicles are responsible for 52 percent of all on-road nitrogen oxide (NOx) emissions from the state's on-road vehicles, as well as 45 percent of on-road, direct fine particulate matter (PM2.5) emissions and 24 percent of greenhouse gas emissions, or approximately 15.4 million metric tons of CO2 equivalent. NOx contributes to ozone and the

formation of secondary particulate matter (PM), which, along with primary PM emissions, are associated with an increased risk of premature deaths, hospitalization, and emergency room visits. Exposure to fossil fuel exhaust can lead to premature death and other devastating health problems, including asthma and respiratory distress, pregnancy complications and adverse reproductive outcomes, cardiac and vascular impairments, and heightened cancer risk. In 2022 the Health Effects Institute completed the largest ever review of existing research on long-term exposure to traffic-related air pollution and health outcomes and “found a high or moderate-to-high level of confidence in an association between long-term exposure to [traffic-related air pollution] and the adverse health outcomes all-cause, circulatory, ischemic heart disease (IHD), and lung cancer mortality; asthma onset in both children and adults; and acute lower respiratory infections (ALRI) in children.” Reducing M/HD vehicle air pollution is vital for improving public health and meeting the federal NAAQS for ozone and PM_{2.5}.

Some 72 million people in the United States are estimated to live near freight activity. These individuals are more likely to be people of color, to have lower-incomes and to be disproportionately exposed to elevated levels of diesel pollution. People living near freight hubs—including ports, highways, warehouses, and rail and intermodal yards—often suffer from the combined activity of diesel-fueled heavy-duty trucks, equipment, rail, and vessels.

Sadly, a person’s zip code remains the most significant predictor of their health and wellbeing. Low-income neighborhoods and communities of color breathe in an average of 28 percent more NO_x pollution than higher-income and majority white neighborhoods. This is a direct result of

their proximity to major sources of truck pollution, such as freight corridors. These same communities suffer from additional harms from the freight sector: the paved areas and large, low buildings dominating freight facilities contribute to urban heat island effects, stormwater issues and other environmental impacts. Other industrial sources are often clustered near freight facilities, producing air and water pollution, and toxic releases, further harming communities already impacted by diesel truck pollution. These communities can also face racism and other forms of discrimination that increase their vulnerability to environmental threats. In fact, freight-impacted communities are even more vulnerable to the impacts of air and other pollution because of socio-demographic stressors—including racial segregation, high rates of poverty, lack of access to affordable foods, and lack of access to healthcare—compared to communities that do not face these stressors. Research on cumulative impact has found that the same amount of pollution can result in more harm to people facing additional and compounded stressors than to people who do not. It also recognizes that multiple stressors frequently share interrelated origins. Consequently, people of color and people with low incomes face some of the highest levels of pollution and are least equipped to ward off the consequences.

Like truck pollution, climate change impacts people of color and low-income communities disproportionately. The EPA found that low-income people and people of color are more likely to a) live in areas where they suffer health impacts from air quality associated with climate change (such as asthma onset for children and death from older adults), b) lose labor hours for extreme weather, and c) risk death from extreme temperatures. A 2021 study shows that in U.S. cities people of color are more likely to be exposed to heat intensity in urban “heat islands,” and people with lower incomes and people of color are more likely to lack air conditioning. In

addition, vulnerable populations are more likely to be exposed to climate extremes at work, especially in outdoor jobs, and to lack adequate access to health care. In these and other ways, climate change exacerbates existing health conditions for disproportionately impacted communities who have fewer resources to deal with them.

The Low NOx Rule will reduce emissions from new M/HD vehicles by 90 percent starting in model year 2027. An independent analysis performed by MJ Bradley & Associates found the Low NOx Rule could reduce cumulative statewide NOx emissions by 217,000 MT by 2050. These reductions could result in an additional roughly 303 avoided pollution-related deaths and 199,640 minor health cases attributable to the Rule over the same period. This more than doubles the public health benefits of the ACT rule alone. Many of these health benefits come from the decreased secondary pollutant formation from NOx including fine particulate matter (PM2.5) and ground-level ozone, which themselves have health impacts mentioned above.

Health Metric	ACT Rule	ACT & HDO Rules
Avoided Premature Deaths	237	540
Avoided Hospital Visits (Includes hospital admissions and emergency room visits)	231	523
Avoided Minor Cases		

(Includes reduced cases of acute bronchitis, exacerbated asthma, and other respiratory symptoms, and reduced restricted activity days and lost workdays)	155,116	354,756
Monetized Value (In 2020 dollars)	\$2.8 billion	\$6.3 billion

Source: MJ Bradley & Associates, New York Clean Trucks Program (September 2021)

It is important to note that adoption of HDO is a necessary but insufficient step towards environmental justice (EJ). This rule will reduce toxic air pollution across the state but does not guarantee emissions reductions in EJ communities. The state should develop a strategy to target the dirtiest diesel engines in EJ communities to get those vehicles off the road. This would include policies that target electrification at ports, warehouses, distribution centers, school bus depots, refuse truck hubs, and other freight hubs, as well as others such as low and no-emissions zones and other California vehicle emission standards. Such a strategy is in line with the CLCPA, which calls for prioritizing emission reductions in designated disadvantaged communities, and would implement the recommendations in the Final Scoping Plan, which calls for 100% electrified ports and other freight hubs. Cleaning up heavy-duty vehicle emissions is long overdue for the communities living adjacent to highways, ports, and freight hubs that disproportionately suffer from harmful air pollution. This can lead to reduced emergency visits,

and health costs, and improve health outcomes. Stronger NO_x standards will protect our cities and environmental justice communities across the state.

In late December, the EPA issued new standards that target dangerous tailpipe pollution from trucks in the coming years, the first time it has updated these standards in more than two decades. But these standards fall far short of the mark set by California, and EPA missed a critical opportunity to slash soot and smog and accelerate the shift to the cleanest vehicles. For instance, under the current test procedure, the federal standard allows for up to 75 percent more emissions than then Heavy-Duty Omnibus. The warranty and useful life requirements for Class 8 vehicles also increased but fall short of the HDO, at 450,000 miles and 650,000 miles, respectively, short of the 600,000 miles and 800,000 miles required by the HDO. Furthermore, these rules contain a gaping loophole that adjusts the in-use requirements of the standard when engines are operating at ambient temperatures under 77°F—hardly frigid temperatures—and excludes data below 40°F entirely. This loophole allows for as much as a 60 percent increase in allowable emissions under these very common ambient conditions.

Given the deficiencies with EPA's truck NO_x regulations, states like New York must forge a more protective path than the one set by the federal government. Adopting regulations like the HDO rule will help secure the public health of state residents.

The Low NO_x Rule makes much-needed reforms, such as strengthening NO_x and PM emission standards for new M/HD vehicles, introducing a new NO_x standard for a low-load certification

cycle, extending manufacturer warranties, and improving in-use testing to better align with actual operations. Importantly, the Low NOx Rule lowers the NOx emission limit for new fossil fueled M-HDVs by 90 percent by 2027 to 0.020 gram per brake horsepower-hour (g/bhp-hr). This 90 percent reduction is highly feasible. Nearly a decade of rigorous research, testing, and demonstrations convincingly show a 0.020 g/bhp-hr standard for model year 2027 can be met.

More than eight years ago, the Southwest Research Institute (SwRI) began work with local, state, and federal regulators and industry to determine whether technologies could meet a 0.020 g/bhp-hr NOx requirement. The most recent results from this multimillion-dollar demonstration project are conclusive: the Low NOx Rule’s 2027 requirements can be met with considerable margins across real-world truck routes. The following chart compares the Low NOx Rule’s NOx emission and vehicle warranty requirements (expressed in miles) across the three emission tests—Federal Test Procedure (FTP), Low Load Cycle (LLC), Ramped Modal Cycle Version of the Supplemental Emission Test (RMC)—for different vehicle operations, with emission testing results from the SwRI demonstration project.

	HDO Rule Requirement	SwRI Results	HDO Rule Requirement	SwRI Results	HDO Rule Requirement	SwRI Results
Test Cycle	NOx g/bhp-hr at 435k miles		NOx g/bhp-hr at 600k miles		NOx g/bhp-hr at 800k miles	
FTP	0.020	0.020	0.035	0.029	0.040	0.037
LLC	0.050	0.029	0.090	0.033	0.100	0.034

RMC	0.020	0.017	0.035	0.024	0.040	0.030
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While the SwRI demonstration project proves what is possible, the companies building emission control systems are delivering solutions. According to the Manufacturers of Emission Controls Association (MECA), their members are developing numerous engines and aftertreatment technologies “to simultaneously meet future NO_x and GHG emission standards” which “include electrification, advanced turbochargers, EGR systems, cylinder deactivation, advanced catalysts and substrates, novel aftertreatment architectures, and dual urea dosing with optional heating.”

Innovation is driving cost-effective solutions. In fact, the technologies to meet the Low NO_x Rule’s first stage that runs through 2026 are already commercially available at minimal cost, and truck manufacturers have more than enough lead time to explore and commercialize existing demonstration projects to meet the second stage beginning in 2027. One such project deployed a Class 8 Peterbilt tractor in Walmart’s fleet capable of meeting the 2027 NO_x emission limit. And it did it while improving fuel economy by 10 percent and using a technology—an opposed piston engine—that is expected to cost less than current engines. The Low NO_x Rule is designed to drive innovation to achieve substantial pollution reduction within a realistic timeframe.

Demonstration projects are proving that a suite of technologies are available to meet the Low NO_x standards while potentially cutting costs for fleets and manufacturers. Thus, New York can confidently move forward adopting the HDO rule knowing that it is technologically feasible and cost-effective. Commenter 2617.

Comment 480: GET THIS DONE!! Commenter 2641.

Comment 481: New York should lead in cleaning up the air. Commenter 2623.

Comment 482: New York needs "THE BENEFITS OF CLEANER AIR AND AN ECONOMY THAT IS LESS RELIANT ON POLLUTING AND EXPENSIVE FOSSIL FUELS."

Commenter 2673.

Comment 483: quit accepting the unacceptable. Commenter 2659.

Comment 484: Just the idea of breathing clean air is wonderful. Commenter 2665.

Comment 485: Please Make America Green Again! Commenter 2672.

Comment 486: Clean cars will help to repair our climate and our health! Commenter 2677.

Comment 487: The most impactful action I've taken in years is buying a Tesla. Instead of oil changes, motor problems, worrying about replacing fuel injectors every year, AND I don't even look at the price of gasoline anymore. I plug into a regular outlet in my garage. I have 315 mile

battery range and 4wheel drive. Battery is recycled. What's the matter with saving up a few extra dollars to make an immediate impact?! They ARE affordable compared to the other big cars on the road. Commenter 2682.

Comment 488: We need to get to 100% zero emissions not only to clean our air, but to send a clear message to the fossil fuel companies that we will no longer be held hostage by their greed and disregard for our planet. Commenter 2685.

Commenter 489: NY needs to help lead the way to addressing climate change. Commenter 2689.

Comment 490: We need clean air to breath. Commenter 2691.

Comment 491: We have a Prius but that's not good enough. We want all electric cars and charging stations that are powered by solar. Commenter 2695.

Comment 492: My 3-month old boy deserves clean air to breathe. Commenter 2708.

Comment 493: We have the technology to go with natural resources. Electric buses. Less gas guzzlers. Commenter 2712.

Comment 494: Clean Air in New York should be a priority! Commenter 2730.

Comment 495: I have a permanent breathing obstruction that is a serious problem. Clean air is the only real thing that relieves it. Commenter 2744.

Comment 496: fossil fuels are killing us; it's time to plan on avoiding them! Commenter 2752.

Comment 497: We are already too far behind in ditching fossil fuels. Do this now! Commenter 2754.

Comment 498: Air quality, Breathing, Lung health. Commenter 2766.

Comment 499: Please act NOW! Commenter 2772.

Comment 500: I like to breathe fresh air. Commenter 2777.

Comment 501: Let's take another step toward cleaner air. Commenter 2782.

Comment 502: We must do better and aggressively work towards eliminating emissions.

Commenter 2788.

Comment 503: The very least we all deserve is clean air (and water!) in New York. Commenter 2790.

Comment 504: What's more important than clean air?? We have the technology, now Let's have the will to pass legislation. Now. I have an EV and it is the way of the future. Commenter 2797.

Comment 505: It's equally important that the sources of electricity be non-fossil fuel based.

Commenter 2803.

Comment 506: NY state needs to continue to play our part in the transition to EVs. EV owners need support as they pioneer the transition. Commenter 2807.

Comment 507: My apartment windows had less grime during the pandemic - but it's back with all of the cars. Commenter 2813.

Comment 508: Please, help us transition to clean energy as soon as possible, so our future generations have chances to live, for the environmental benefit. Commenter 2820.

Comment 509: Keep our kids alive. Commenter 2859.

Comment 510: I look forward to the day when I don't have to breathe exhaust from idling cars at the ATM (I'm on a bike) or listen to broken mufflers. I plan to go electric as soon as I can.

Commenter 2867.

Comment 511: Time is running out - there's no planet B! Let's lead the way toward a carbon neutral future. Commenter 2869.

Comment :512 Get it done. Commenter 2898.

Comment 513: Please act! Commenter 2967.

Comment 514: WE WANT CLEAN AIR NOW. Commenter 2970.

Comment 515: Drive home cleaner air for everyone! Commenter 2997.

Comment 516: Let's make the Empire State a leader in mandating clean autos! Commenter 3004.

Comment 517: This is critical. Commenter 3013.

Comment 518: New York has always been a leader in embracing strategies needed to combat (sic) climate change. Let's continue that commitment. Commenter 3036.

Comment 519: It should be effective to start with municipal & school vehicles and build out the infrastructure for all of us. Commenter 3021.

Comment 520: Global warming and climate change is real. Our quality of life will decline and so will our descendants' quality of life if we do not remedy the problem. Commenter 3029.

Comment 521: Let's electrify everything. Quickly. Commenter 3036.

Comment 522: Do not compromise the Earth for ca\$h (sic). Commenter 3038.

Comment 523: We have to start putting our natural world and all that inhabit it foremost- not just for humans insatiable appetite for greed and over consumption. Commenter 3044.

Comment 524: I would purchase an electric car in future if the was more infrastructure. I really think we need electric mass transit as well. Commenter 3046.

Comment 525: There can be no compromises about the future of this planet. We need to supersede the greedy power of fossil fuel companies, and of politicians, who are funded by those companies. Commenter 3049.

Comment 526: Responding to climate change requires re-tooling of much of our transportation infrastructure. Commenter 3051.

Comment 527: Save the world. Commenter 3057.

Comment 528: Electric cars help us breathe better. Commenter 3091.

Comment 529: I want clean air now. It's simple. Help us breath (sic) easy now. Commenter 3-97.

Comment 530: Please follow the example of California in the transition away form (sic) fossil fuels. Commenter 3102.

Comment 531: Empire State needs to show leadership approach in getting EV front and center. Rising breathing issues for our future needs to be curbed! Commenter 3106.

Comment 532: It is true of our friends, loved ones and ourselves that we each get one set of lungs, Let's get more serious about the health of our planet and it's inhabitants, at this point there's really no choice, none of our neighboring planets are possible havens, weave (sic) got to save this one now, for our children and for the well-being of our one and only home. Commenter 3112.

Comment 533: There are lithium free batteries out there. The so-called job makers should be investing in this kind of technology. Where are all the visionaries? Commenter 3113.

Comment 534: These measures will also aid the global fight against climate change to minimize the risks of storms and flooding to the population. Commenter 3123.

Comment 535: Thanks for the work you are doing to protect our climate. Let's keep it going. At this point, we need to take all action available to clean our air and save the planet. Commenter 3124.

Comment 536: Climate change is an emergency. Please act strongly in support of ending fossil fuel use. My children depend on it. Commenter 3128.

Comment 537: Just by purchasing a plug-in hybrid Pacifica it improves the environment in Lewis County. Will do more when we can. Commenter 3135.

Comment 538: Please Governor do the right thing and begin the process at the State level. Thank you. Commenter 3140.

Comment 539: Now is the time to act. We have waited too long. When I started as a classroom teacher in 1968 the school nurse would occasionally tell me a child had asthma. Then by the late 70s we went to printed lists. Then stapled lists like a small phone book by the 90s. When I retired in 2009 we were told to look it up on a computer. Saving money. As a swimming coach(good sport for asthmatics) I had to constantly monitor athletes pumps. Did they have enough? Were they sharing to save money? Commenter 3157.

Comment 540: This is super important! Commenter 3182.

Comment 541: This is inevitable, lets (sic) move forward. Commenter 3189.

Comment 542: I have driven a Tesla for over two years. Commenter 3206.

Comment 543: Well, this matters because we must get off fossil fuels. They are a bad and dangerous thing. What more is there to say? Commenter 3207.

Comment 544: I would also encourage the use of geothermal energy as a way to power these vehicles. Commenter 3209.

Comment 545: EVs are the only tenable long term strategy to defeat climate change. But, it must be implemented immediately to meet the need. Commenter 3222.

Comment 546: We previously owned a 2008 Prius and now have a 2021 Prius Prime! We know how important it is to have clean air and are willing to put through the effort to help in ways that we can. Please do your best to continue the progress as quickly as possible - our lives depend on it! Commenter 3232.

Comment 547: I just purchased a hybrid plug-in and getting approx. 290 miles/gallon. Commenter 3243.

Comment 548: I need a program to cut price of EV so I can afford one!! I want to buy one!! Commenter 3254.

Comment :549 It is way past time for us to come up with alternatives to so much fossil fuels being burned...our planet cannot wait. All cars should be EV! Commenter 3260.

Comment 550: This is our moment. We should keep moving forward on our battle against tailpipe emissions, and finish 2022 on a good note. Commenter 3264.

Comment 551: I drive an electric vehicle and I want more people to be able to afford the same. Commenter 3270.

Comment 552: We have a lot of carbon to compensate for. Electric vehicles are a big step toward New York's climate goals. Commenter 3278.

Comment 553: Clean Air is important because we are important and need it for survival. Let's work on clean cars, clean buses and clean trucks. All of these will contribute to cleaner air. Commenter 3284.

Comment 554: The fight against climate change is not a single solution reality. This is one of many strategies we must implement to ensure a better present, a better future, and a better relationship to the very earth that sustains us. Commenter 3296.

Comment 555: Stop air pollution from traffic! Commenter 3300.

Comment 556: As an asthma sufferer, I want to support *anything* to make the air cleaner!!!!
Commenter 3303.

Comment 557: Changing transportation emissions is within our reach. I just visited Norway and saw how normal it can be to have all vehicles run on electric. Let's do this now! Commenter 3305.

Comment 558: Our State & Country need CLEAN CARS, CLEAN AIR NOW! Tax Rebates for consumers who both lease & purchase electric cars. Commenter 3309.

Comment 559: However, you MUST do MUCH more. We MUST keep ALL climate-changing fossil fuels IN THE GROUND! We MUST achieve 100% clean, renewable energy by 2030.
Commenter 3311.

Comment 560: Make clean electricity. Commenter 3324.

Comment 561: I drive a (sic) electric they're great. Commenter 3331.

Comment 562: Climate change is the most pressing issue we face, against which we need many more incentives and regulations than we currently have! Commenter 3335.

Comment 563: It is crucial that we transition from fossil fuels to solar and wind power as soon as possible. It should have happened 30+ years ago, but it needs to happen NOW. I support any measure that helps us save the planet. Commenter 3336.

Comment 564: It's so important to address climate change immediately for the sake of future generations. Commenter 3340.

Comment 565: Thank you for making the move away from fossil fuel. We need to make an impact on climate change. Commenter 3342.

Comment 566: In my lifetime I've seen what pollution does to the air, water, and soil of this country. As a mother and wife, I've lived with three asthmatics, whom have struggled to breathe, frequently. Thank goodness for prednisone's short term effects: however, the long term effects are catastrophically damaging. Growth curbing, skeletal degradation. Not optimum. I am on the side of curbing the great oil entities that rule the world and destroy life as it should be. This is the downside of capitalism, money at the expense of life and living, for all creatures and life forms. I'm on the side of curbing mankind's dominance over life, at the expense of life and if it takes laws to do this, so be it. Commenter 3345.

Comment 567: Electrification of transportation is crucial. Commenter 3346.

Comment 568: It's time to stop polluting the atmospheres. And it's way overdue to stop our dependence on foreign oil. The big oil exporters have the power to cripple our economy and dictate the way we live our lives. The US must become a leader , and a forerunner in the quest to achieve cleaner and greener energy. Commenter 3348.

Comment 569: Save the world. Commenter 3353.

Comment 570: We only have one planet- and NY should be a leader in enviromentally (sic) friendly programs. Commenter 3376.

Comment 571: We are the first generation to feel the impact of Climate Change and the LAST generation that can do something about it! We must do all we can! Commenter 3379.

Comment 572: This will help NYS implement CLCPA. Commenter 3382.

Comment 573: Please do this. Commenter 3384.

Comment 574: Please continue to act proactively for the citizens of our state. Commenter 3393.

Comment 575: I now drive a Tesla and power it with 100% clean energy, much of it from the solar panels on the roof of my house. Commenter 3421.

Comment 576: There is nothing more important than protecting our children and grandchildren from the dangers of climate change. Commenter 3428.

Comment 577: There are far too many days of air quality alerts and advisories to limit outdoor activity. New York residents should be able to go outside any days of the year without worrying whether the air they are breathing will cause serious health problems. Commenter 3430.

Comment 578: YES Many years ago I have seen jungle fires off road due to accidents around Lake Tahoe. But battery cost and Recycling Issues must be taken seriously. Commenter 3447.

Comment 579: Please move forward with electric vehicles. Commenter 3457.

Comment 580: I'm tired of sucking on bus exhaust. Let's get this done already. Commenter 3460.

Comment 581: Climate change is real. Commenter 3471.

Comment 582: Environmental Action Now! Commenter 3477.

Comment 583: This is the most important thing we can do for the next generation. Commenter 3478.

Comment 584: We have an all-electric car on order! Commenter 3479.

Comment 585: My wife and I have been transitioning from first a hybrid, to now a plug-in hybrid. We plan to have an EV as our next car. We need to make it easier for everyone to make this transition. Commenter 3484.

Comment 586: We cannot keep killing the planet! Commenter 3487.

Comment 587: This is very important for all of us! Commenter 3490.

Comment 588: Do we hasten the death of the planet or find solutions? Commenter 3506.

Comment 589: I agree with the Sierra Club. Commenter 3512.

Comment 590: We're literally running out of time to save our one-and-only planet. Commenter 3539.

Comment 591: SUPPORT CLEAN AIR. Commenter 3541.

Comment 592: Transportation electrification in New York will benefit all of us. Commenter 3543.

Comment 593: As a young person, I am incredibly concerned about the climate crisis and what it means for our future. We must do everything we can to end our reliance on fossil fuels and transition fully to a renewable energy economy and transportation system. Commenter 3546.

Comment 594: this is essential. Commenter 3547.

Comment 595: I'd like to leave the world cleaner, safer & more loving than when I came. Commenter 3555.

Comment 596: New York should be at the forefront of this issue! Commenter 3567.

Comment 597: I've got a plug-in hybrid now, but don't want to get an all electric UNTIL there are enough chargers available all over. Commenter 3578.

Comment 598: please vote for clean cars. Commenter 3579.

Comment 599: Our grandkids can not wait for more years of slow progress. We are decades behind the moving slowly route. We must act decisively and quickly as any one of 100s of scientific studies would support. Commenter 3590.

Comment 600: EVs are the future! Commenter 3597.

Comment 601: This program is a way that many people can collectively make a significant difference in climate change and the quality of the air we breathe! We have embraced hybrid and now EV vehicles and are extremely pleased that we did! Commenter 3599.

Comment 602: We need to do everything we can to reverse this climate crisis. Commenter 3609.

Comment 603: In every sector, the burning of fossil fuels must stop in order to reverse global warming and stop the destruction of our planet. Commenter 3612.

Comment 604: As an EV vehicle owner for more than 9 years, the time is right! Commenter 3615.

Comment :605 Electric cars R (sic) the wat (sic) to save our Environment. Commenter 3640.

Comment 606: May you do ONLY that which is truly best for the environment and the vast majority of people living America as well as its territories and possessions, and cause those people as little harm as humanly possible. Thank you for reading my message and prayer. Commenter 3626.

Comment 607: We are an electric car family. Commenter 3637.

Comment 608: Prior to retirement, I was the fleet administrator for the City of New York's fleet of 27,000 vehicles. The City was the first fleet to purchase hybrid vehicles and consequently, won the first annual Green Fleet award from the National Association of Fleet Administrators. Soon thereafter, we turned towards ZeEV As a former fleet administrator for NYC, we were the

first fleet in the US to buy hybrid vehicles. Our fleet subsequently won the first annual Green Fleet award from the National Association of Fleet Administrators. We then turned towards EV vehicles. Now, my successor has some 500 charging stations in NYC. I currently live in Ulster County which has a green fleet purchasing policy and our newly elected County Executive drives a Bolt. Commenter 3672.

Comment 609: GET THE DIESELS OUT OF NY. Commenter 3673.

Comment 610: No time to waste. We're headed for a climate cliff! Commenter 3687.

Comment 611: Far too often I see unoccupied vehicles running, spewing exhaust, and not even in just the cold months. If the environmental crisis isn't enough to encourage citizens to curb their habits, then legislation is the only hope for aiding the slowdown of the destruction of our precious environment. Any steps to protect the environment are not only necessary, but immensely impactful. New York needs to be implementing practices that will help reduced the rate at which our environment is being destroyed and set an example for the rest of the nation and world to follow. Carelessness should not be tolerated, and New York needs to take action. The future of our planet and all of the magnificent inhabitants are dependent on positive change. Thank you. Commenter 3692.

Comment 612: California did it! New York can too! Commenter 3693.

Comment 613: We the people want the electric cars promoted!! Commenter 3695.

Comment 614: Should clean air to breath not be a fundamental right of all New Yorkers?!? The question answers itself. Such a ridiculously obvious purpose for a decent government of, for, and by the people that it is hard to believe we are still asking for it. Commenter 3732.

Comment 615: No More Air Pollution. Commenter 3736.

Comment 616: I love my Tesla! I wish everyone had an electric car. Let's work toward that, please! Commenter 3739.

Comment 617: I don't currently own an electric vehicle but my next vehicle certainly will be. It's the right thing to do. Commenter 3749.

Comment 618: I own a Tesla unfortunately we have only four service centers in the state. If Ny (sic) is serious about ev then change the regulations so Tesla owners can have community Tesla service providers. Commenter 3751.

Comment 619: I have children and grandchildren and I want our planet to be livable for them.
Clean cars is one significant way we can help achieve this. Commenter 3760.

Comment 620: Let's do the right thing. The whole world will benefit from this project according to the definition of "The Global Commons". Commenter 3762.

Comment 621: We all breathe air, why not let's keep it clean. Commenter 3765.

Comment 622: Support sustainable mass transportation! Commenter 3770.

Comment 623: This is a huge issue, and the most important for me as a voter. Commenter 3775.

Comment 624: We could be the leaders in this effort, first extra tax taxis, Ubers, etc that are not electric then move on to all delivery vehicles etc. Commenter 3780.

Comment 625: There is little justification for ICE vehicles, when one considers the economics, the performance, the convenience, and the effects on air pollution. Commenter 3781.

Comment 626: Remember proposition 1! Commenter 3783.

Comment 627: I drive an electric car and am happy about not contributing to global warming in this way. Commenter 3786.

Comment 628: We desperately need clean air. Commenter 3792.

Comment 629: It matters today, not later. We need to be proactive not reactive. Commenter 3794.

Comment 630: Clean the air, clean our lungs, clean our lives! Commenter 3802.

Comment 631: Long overdue; rarely to never enforced. Commenter 3808.

Comment 632: We need to get off fossil fuels as soon as humanly possible. Commenter 3810.

Comment 633: The technology is there just usher it in! Commenter 3820.

Comment 634: Clean up your act and clean up our air. We need to breath healthy and safely.
Commenter 3821.

Comment 635: We need cleaner air for our health and our future. Commenter 3823.

Comment 636: I don't want polluted air for myself or my family. Or my friends and neighbors, for that matter. And we just got to stop poisoning our environment. Reason enough, I think.

Commenter 3824.

Comment 637: I'm support a cleaner earth over all my goal is it to be better for the environment because in the end nature will win when nothing else is alive so how about we enjoy our earth and keep alive and stop being lazy and neglectful to the very place we need to survive.

Commenter 3825.

Comment 638: We must reduce carbon emissions whenever and however we can. Now!

Commenter 3828.

Comment 639: I have a new granddaughter! She deserves a healthy chance for life! Commenter 3831.

Comment 640: I want the planet to survive in the future. We do not have a plan B!! Commenter 3832.

Comment 641: I have friends and family who have suffered from asthma because of environmental pollution. Cleaner vehicles can ensure that peoples' lives are not made worse at the behest of profit. Commenter 3836.

Comment 642: KEEP NY CLEAN! Commenter 3841.

Comment 643: We need clean air! Commenter 3844.

Comment 644: Put the pedal to the metal ! Stop cars funky fumes ! Comment 3845.

Comment 645: We all know that our City is one of the busy (sic) when it comes to car pollution. Therefore all of our leaders should be reminded of the important (sic) of getting this problem addressed. I'm all for making this world a safer place for generations to come. Commenter 3846.

Comment 646: We need to begin to work towards full clean air because we need to make sure future New Yorkers have a healthy place to live. Commenter 3847.

Comment 647: The future of my Grandchildren and Great Grandchildren depends on what is happening now with our environment. We cannot keep making the same mistakes and expect a

different outcome. We must correct our input of our planet, we need this now. I could go on and on, but you understand exactly what I'm saying. Thank you for your brave and wise decisions.

Commenter 3848.

Comment 648: We do not have any wait time. I need to annoy you until you act bc (sic) I have nine grandchildren. Commenter 3852.

Comment 649: We must reduce CO2 as fast as possible by every means available. This one is easy and impactful. Let's do it ASAP! Commenter 3863.

Comment 650: Stronger regulations on EVERYTHING, Fishing, vehicles. Commenter 3865.

Comment 651: The orders (sic) and toxicity strewn off by these outdated vehicle have no place in our environment knowing that we only have a relatively short time to maintain healthy viability on our planet for our podgeny (sic). These fuming vehicles should have been outlawed a long time ago Do the right thing and ban them NOW. Commenter 3866.

Comment 652: Clean air is good for climate and health. Commenter 3875.

Comment 653: Please take any steps you can to help clean up our environment for everyone's health as well As the health of the earth. Commenter 3876.

Comment 654: Continue to help save the environment & help save all wildlife & marine life. Commenter 3878.

Comment 655: I want to breathe clean air. We need to get off polluting fossil fuels, not only for our better air, but to lower the temperature as our earth keeps warming and gigantic glaciers are melting! I fully support electric batteries replacing gas engines. Let's act urgently for a better future. Commenter 3900.

Comment 656: New York should be a leader in decreasing pollution. We all need to move to electric cars to save our planet for our children and the natural world. Commenter 3884.

Comment 657: Do the Right Thing ! We have only One Earth ! Stop Killing Us ! Commenter 3886.

Comment 658: We are the stewards of this planet, of our nation and our great state. Let New York show the way to other states in cutting climate and air pollution thru strong environmental regulations regarding our vehicles. Commenter 3889.

Comment 659: If we don't MAKE and KEEP our CLIMATE CLEAN, we will LOOSE (sic) OUR CLIMATE, and SLOWLY DIE BECAUSE we NEED NATURE TO LIVE, AND GROW! JUST THINK ABOUT IT. Commenter 3890.

Comment 660: Definitely matters for now & generations to come. Commenter 3899.

Comment 661: I want my five-year-old granddaughter to enjoy the planet and as much as I do. Please help clean it up! Commenter 3900.

Comment 662: Save our air! Commenter 3901.

Comment 663: This is pollution protection we needed decades ago that can start now. Any delay only further damages our health and wellbeing. Commenter 3902.

Comment 664: New York needs programs that reduce vehicular pollution and support the use of non polluting vehicles. State agencies should immediately transition to non-polluting and low-polluting vehicles. This should be a high priority. Commenter 3913.

Comment 665: We need to stop polluting our air. Commenter 3914.

Comment 666: No more pollution. Commenter 3919.

Comment 667: Every effort should be made to incentivize good stewardship of our planet.
Commenter 3921.

Comment 668: Regulations are needed to protect the environment! Commenter 3926.

Comment 669: We need electric cars so there will be no more pollution only clean air.
Commenter 3927.

Comment 670: We don't have time to be nit picky on the climate. Commenter 3937.

Comment 671: Burning fossil fuels harms everything and everyone, more than we realize. It affects living organisms relating to their health, home, and environment. It damages our lands and our home and if we don't do something about it we will continue to live through a world we won't be able live through. Lets (sic) limit the use of this pollution and use better and efficient energy sources and switching to electric cars! Commenter 3944.

Comment 672: We need to protect our environment from ourselves. I don't think we have what it takes. Man tends to believe these important things have snooze button. Commenter 3953.

Comment 673: Time is running out on climate disaster! Commenter 3956.

Comment 674: Stop this dirty practice. Commenter 3963.

Comment 675: We need safe the planet for us and the future generations behind us. Commenter 3965.

Comment 676: We need to protect our health, air and climate! Commenter 3968.

Comment 677: Cleaner air for younger and future generations. Commenter 3969.

Comment 678: I want my grandkids to be able to breathe as they grow up. Commenter 3971.

Comment 679: Clean Air is SO IMPORTANT 2 YOUNG & OLD! Commenter 3975.

Comment 680: We have some serious pollution here in Syracuse from autos, which is near my neighborhood & also near three hospitals. We need to clean this up. Commenter 3977.

Comment 681: On a personal note, I breathe these emissions in every day on my bike and I'm scared for my health. Commenter 3982.

Commenter 682: Cleaner air is better for every citizen in NYS. Commenter 3984.

Comment 683: Please, there is no time left for earth. Commenter 3987.

Comment 684: I sign my name- as some day (??) we can go better and cleaner energy. When though how far or close- don't know .it has to make 100% engineering and economic -common sense. Commenter 3989.

Comment 685: We need to lead the nation, or at least keep up with California! Commenter 3992.

Comment 686: I'd love to buy an electric vehicle, but prices are too high & no charging close to me. But I do hope you keep advancing the process. Commenter 3998.

Comment 687: Clearly, the state of our environment is, at best, precarious. Please continue helping tip to scales to a more earth-friendly, and people-friendly outcome. Commenter 4001.

Comment 688: It used to be easier to breath. Need stronger regulation to decrease vehicle pollution Cars and Trucks. Commenter 4002.

Comment 689: Please protect our health! Commenter 4005.

Comment 690: We must do everything we can to mitigate and reverse climate change and warming. This is an incredible tool in our toolbox. Use it. Be brave. Take care of us and our future. Commenter 4008.

Comment 691: Please , we want & need clean air. Commenter 4010.

Comment 692: We only have one planet HELLO??? Commenter 4018.

Comment 693: For many years we had a hybrid car and now a plug-in hybrid. Our next car will surely be an EV. Our grandchildren's future depends on a stable climate! Commenter 4026.

Comment 694: I am a car-free New Yorker, and I want all New Yorkers to benefit from decreasing our collective dependence on gasoline. Commenter 4032.

Comment 695: Mandatory ban of 1 person in an suv for more than 50% of miles driven. Commenter 4033.

Comment 596: Dealing with climate change fairly and quickly is of the utmost importance. Commenter 4048.

Comment 697: Let's show the rest of the country that New York is a leader in the transition to EVs. Commenter 4063.

Comment 698: My husband and I are on our 5th hybrid. We feel this is extremely important. Commenter 4075.

Comment 699: Please prioritize electric cars, improving our infrastructure and charging stations. We want to do our part and lead! Commenter 4077.

Comment 700: This could make a huge difference in the quality of life for our city! Commenter 4078.

Comment 701: NYS should be a leader in taking measures to curb pollution, not a follower!

Commenter 4081.

Comment 702: Our infrastructures must transition to all electric. Electric vehicles is (sic) an integral step in this transition. We need the Advanced Clean Cars program. Commenter 4087.

Comment 703: Upgrading the grid to handle an increase in demand for electric vehicles is eccential (sic). Commenter 4097.

Comment 704: There isn't much time to save the only thing that gives us life. Commenter 4098.

Comment 705: I own a Tesla and support going electric. Commenter 4102.

Comment 706: I am signing as a faith leader, a Presbyterian pastor. Commenter 4103.

Comment 707: My infant daughter will inherit a world very different from the world I've known. We need to act decisively and immediately to forestall the worst impacts of the climate crisis. Commenter 4113.

Comment 708: For every reason clean air is just obviously critical... NY is a cultural leader in so many different & meaningful ways... Let's represent what matters for all of us in a yet another way that defines our uniqueness & progression!! Commenter 4124.

Comment 709: We need to accelerate availability of green vehicles especially if there's opportunities for New York's government fleet. Commenter 4127.

Comment 710: We're ready to get one! Commenter 4128.

Comment 711: Climate change impacts all life! Commenter 4131.

Comment 712: Our reliance on internal combustion modes of transportation cannot be sustained in the long term and is damaging to the environment. Commenter 4132.

Comment 713: What the fossil fuel is doing to our planet is horrific. Plus the exhaust fumes have a huge impact on our health breathing fossil fuel exhaust is a crime to humanity and to Our planet! Commenter 4134.

Comment 714: Clean is needed in New York! Commenter 4138.

Comment 715: I would like to see every tree that had been cut down be replace with a new tree especially around city locations. Commenter 4140.

Comment 716: Especially electric buses. Commenter 4147.

Comment 717: We must work together to make a difference in the world. Please and thank you. Commenter 4150.

Comment 718: Protect our environment!! Commenter 4160.

Comment 719: My husband and I have been driving hybrid and fully electrified vehicles for the past approx. two decades. We enjoy driving more than before, knowing we're causing less air pollution, not needing to rely on fossil fuels pumped expensively from the earth (& contributing to the multiple dangers & costs of global warming ?). In addition, electric and solar-powered vehicles are fun to drive! There's no need to keep pumping our planet's stored energy from the ground. In my opinion, we should however, give forethought to, and take action to remedy, any adverse consequences that may arise from ending our reliance on fossil fuels as well as petroleum-based products such as plastics, e.g., developing cross- training programs to give oil and gas (& coal!) workers strong access to fulfilling new work. Thank you for your thoughts and actions toward these important goals! Commenter 4171.

Comment 720: Make charging stations available FREE for electronic vehicles. Commenter 4174.

Comment 721: This will help me convince my husband that we can afford an EV. Commenter 4177.

Comment 722: Electric cars just make sense. If we can progress toward cleaner transportation we can lower emissions that poison the environment and escalate devastating climate change. The US is responsible for the highest rate of transportation emissions. Let New York State be a leader in reversing our dependence on toxic fossil fuels. Commenter 4179.

Comment 723: Please embrace the future! Commenter 4183.

Comment 724: New York City would become a fantastically inviting town if it were freed of automobile exhaust. Commenter 4205.

Comment 725: I'm very concerned for true future of my 9 year old daughter. We need to take immediate action to protect the planet for her and future generations. Commenter 4189.

Comment 726: It will stop the pollution i (sic) hope. Commenter 4197.

Comment 727: Do this for our children and theirs. Commenter 4198.

Comment 728: Plug in hybrids are a great place to start. Commenter 4202.

Comment 729: Clean air is very important for health and wealth being especially in nyc.
Commenter 4204.

Comment 730: This is such an exciting and inspiring time- we are finally taking concrete steps to mitigate the effects climate change in a meaningful way! Commenter 4205.

Comment 731: Help us use less fossil fuel and keep our air cleaner. Commenter 4206.

Comment 732: We all need to contribute to the effort to reduce adverse climate effects.
Commenter 4208.

Comment 733: Stop the packed conservative supreme court from taking away our voting rights it impacts everything. Commenter 4213.

Comment 734: Clean air and oceans require reduction in the use of fossil fuels. Commenter 4216.

Comment 735: Let's get ahead of the game and make a bold decision. Hybrid or electric vehicles will be a big step in the right direction. Commenter 4217.

Comment 736: Our state's waterways and natural areas need climate action now!! Commenter 4218.

Comment 737: I believe in energy preservation and clean air. Commenter 4221.

Comment 738: Please help us eliminate vehicles that require fossil fuels. The blanket of carbon emissions in blanketing the earth warming it up causing Global warming. The use of electric vehicles will slow the forces that create Global warming. Commenter 4224.

Comment 739: I want to breathe and not get sick, and so do millions of other people in NYS!! Commenter 4228.

Comment 740: The electric car needs to energized. Commenter 4235.

Comment 741: We needed this years ago. Help speed us up into a cleaner, less fossil fuel dependent society. Commenter 4242.

Comment 742: Save our planet and biodiversity. Commenter 4248.

Comment 743: The issue is so important to me that 5 years ago I purchased an all-electric Bolt. Commenter 4250.

Comment 744: At least this is a beginning to try and save our planet. Commenter 4251.

Comment 745: There is no reason for NY to not do this simple action. Upstate is beautiful, enjoy it, don't destroy it! Commenter 4252.

Comment 746: We are stewards of the planet. This means we are supposed to care for the soil, the water, the air, our fellow creatures and ourselves. No planet, no us, no life. We must do anything and everything that we can do in our great state of New York to help our climate so we can all live. Commenter 4253.

Comment 747: Living with athsma (sic) and allergies that developed AFTER moving to NY at the age of 22 has been a learning experience to say the least! Bring pollution to an end by helping pass this important legislation PLEASE ! Commenter 4261.

Comment 748: Our coy (sic) must move ahead, like Europe. We make a lot of the pollution, or farm it out to other countries, so we need to start doing our part to solve the problem. Commenter 4269.

Comment 749: Clean energy. Commenter 4271.

Comment 750: Climate degradation is a major worry for me, and switching to electric vehicles in a smart and well thought out measure is a major step towards fixing climate issues. Commenter 4272.

Comment 751: The EV revolution is happening , the rest of the world gets it , Let's stay in the game before we surrender this to other nations. Commenter 4273.

Comment 752: This needs to start now and make it affordable!!! Commenter 4278.

Comment 753: Please work towards a habitable future. Commenter 4279.

Comment 754: I'm an asthmatic senior, having survived for three quarters of a century. I vigorously desire another quarter or two. Your attention to pass the bill transferring our dependence from polluting & expensive fossil fuel will give me and others with the same health and financial issues to continue to survive. Commenter 4281.

Comment :755 I have a Hybrid. I want my next car to be all electric but need more infrastructure. Commenter 4295.

Comment 756: Our children and grandchildren deserve a better future. Commenter 4297.

Comment 757: Electric cars are so cool! And so good at ending pollution, as long as the electricity comes from green sources, and not coal or other fossil fuels. Let's make that transition to a green and healthy and sustainable future. We can do it, New Yorkers! Lead the way, as we so often do in this country. Commenter 4299.

Comment 758: There's a lot of wilderness in New York. We who live there want to protect it, but we also need to be able to get to doctors and groceries, and in the Adirondacks, the first hour of driving is a given. We need electric car hookups! Commenter 4300

Comment 759: I WANT TO HAVE AN ELECTRIC CAR BECAUSE THEY ATE (sic) BETTER FOR THE ENVIRONMENT, AND THEY WILL GIVE PEOPLE BETTER AND FASTER SERVICE, AND BE BETTER THAN THE GAS VEHICLES WILL! Commenter 4305.

Comment 760: I am very excited about the future of electric cars and trucks! Commenter 4310.

Comment 761: SUPORT legislation to improve vehicles that protect the environment.
Commenter 4315.

Comment 762: We can do this! It's very important. Let's do our part. Commenter 4316.

Comment 763: My friends and neighbors all need good clean air to survive .We demand it!
Commenter 4318.

Comment 764: I own an all electric car and I have no problem with having a place to charge it.
We love our Mini Cooper electric. To help turn back climate change we all need to go electric.
Commenter 4324.

Comment 765: The mission to lower carbon emissions must high on everyone's list. Climate change is real and its ongoing presence has disastrous global consequences effecting the well being of millions of individuals. Commenter 4325.

Comment 766: continue the HOV incentive for single riders in EV vehicles beyond 2025.
Commenter 4331.

Comment 767: Please also require all rental car/car sharing companies to maintain fleets of electric vehicles. Commenter 4332.

Comment 768: Look we all must know the ravages burning fossil furs (sic) has on our planet. If you don't, I would try to help you remove your head from your.. In any case it's real and it's severe. We do not have as much time to mitigate the issue as we (scientists and those with ears) thought. The polar ice is melting. Your kids will probably live in a world with no Polar Bears in the wild. Oh and so SO SO SO much more !!!! Please can we please take the necessary steps in this state to reduce our burning of those dirty polluting fossil fuels. Their time is done. Let's bury them! people wake Up. Commenter 4338.

Comment 769: We belong to the Earth. The Earth does not belong to us. It is everyone's ethical, moral and humane responsibility to leave the Earth better than we found it. Commenter 4355.

Comment 770: we need to electrify asap! Commenter 4365.

Comment 771: Here is a chance to show NY as a true leader. Please do so now. Commenter 4389.

Comment 772: Get rid of Louis Dejoy so he can't change US mail trucks into gas guzzling, polluting mail trucks! That would be a start! Commenter 4398.

Comment 773: this planet is the only planet we can live and we must protect at all cost. Commenter 4396.

Comment 774: I strongly support moving forward with electric vehicles and clean energy everywhere, and as quickly as possible. We need to rely much less on polluting fossil fuels, and to regulate the giant producers of oil and gas. It is a fact that they are causing the warming of our oceans with devastating consequences. Wildfires, extreme heat, more deadly and more frequent hurricanes and tornadoes, all because of too much carbon from oil and gas. These poisonous fuels are also making people sick with asthma, cancer, and other diseases. Let's do what is best for all of us who need clean air, water, and space to live and thrive. Please make electric cars and clean energy more affordable, and accessible (sic) to all. Regulate polluting industries, make them pay more for their harmful actions. Put the public interest over their selfish, private interests in New York and in the U.S. Commenter 4401.

Comment 775: we must make the changes now. Commenter 4419.

Comment 776: Follow California's lead. Commenter 4422.

Comment 777: We also produce the Tesla solar roof and our charging units are at our factory located in Buffalo, New York. Commenter 4434.

Response to Comments 342-777: These comments are beyond the scope of this rulemaking.

List of Commenters

1. Norman L Waterman
2. Gary Nelson
3. Diane Matza
4. Bart Farell
5. Katheryn Doran
6. Joel Chiang
7. Dr. Marta Schaaf
8. Riley Giles
9. Riley Giles
10. Anne Paschkopic
11. Riley Giles
12. Anne Paschkopic
13. Anne Paschkopic
14. Sam Wines
15. Mo Kafka
16. Robert Garcia
17. Nancy Romer
18. Fabrice Edon
19. Elizabeth F
20. David Middleton
21. Stan Scobie
22. Gale Epstein
23. Justin Cohen

24. Andrew Joncus
25. Naomi Kloss
26. Roger Woodward
27. Sarah Hunnewell
28. Laura Casely
29. Jeremiah Glazer
30. Ginger Comstock
31. Alexis Adams
32. Meredith Kent-Berman
33. Cathy Goldbas
34. Susan Stair
35. Marcy Gordon
36. Sonia E Goldstein
37. Paul Kawecki
38. Derek Foster
39. Peter Shea
40. Jessica Thompson
41. Marianne Shipp
42. Robert Schloss
43. Dawn C
44. Judith Boyd
45. Jared Weiss
46. Mary Ann Hart
47. Patrice LaMariana

48. Alexis C. Hill
49. Sharon Goel
50. Ilene Choi
51. Helen O. Littledale
52. Chris Proctor
53. Melissa Rinzler
54. Alan Ginsberg
55. Lance Jacobs
56. Marty Van Lenten Becker
57. Marsha Wiseltier
58. Mit Rosenberg
59. Erika A Swyler
60. Steven Ross
61. Tonya Eza
62. Ned Milligan
63. Allen Altman
64. David Orentreich, MD
65. Irene Humbach
66. Michael Savage
67. Derek Foster
68. Helen O. Littledale
69. John Catherine
70. Joe Pfister
71. Ciara Kosoir

72. Meredith Kent-Berman
73. Ruth Foster
74. Desda Kerr
75. Megan Melnick
76. Andrea Murray
77. Martel Catalano
78. Jonathan Craine
79. Maria Beatriz Figueiredo
80. Deb Stewart
81. Jonaliza Ceklic
82. Betsy Kennedy
83. Franco De Nicola
84. JoAnne Metzler
85. Amy Mott
86. Kip Coerper
87. Mark Hollinrake
88. Jonaliza Ceklic
89. Nan Schmid
90. Brenda Campbell
91. Jon Carlberg
92. Jon Carlberg
93. Francisco Velez
94. Rose Ash
95. Susan Arroyo

- 96. Rev. L. Cline
- 97. Jessica Barrett
- 98. Maude Burns
- 99. Mimi Rosenfeld
- 100. David Rosenfeld
- 101. Janice Capuani
- 102. Lesley Brill
- 103. Barbara Rosen
- 104. Elaine Linet
- 105. Richard Leach
- 106. Esther Weaver
- 107. Enrique Velasquez
- 108. Judith Weis
- 109. Natasha Hirschfeld
- 110. Kathleen Corby
- 111. Victor Provenzano
- 112. Sasha Silverstein
- 113. John Seakwood
- 114. Susan Wilcenski
- 115. Kevin Kurtz
- 116. Diana Fantini
- 117. Inga Guliyeva
- 118. Sharon Longyear
- 119. Christina Morris

120. Donald Kimmel
121. Scott Sherman
122. Scott Thomas
123. Michael Madden
124. Ward Giblin
125. Mike and Kathy Sherman
126. Todd Milligan
127. Michael Garvey
128. Jane Dodd
129. Betsy Morgan
130. Sue Maxam
131. Callan Ditmyer
132. Charlene Greynolds
133. Jan Emerson
134. Roberta Young
135. Carol Webb
136. Emma Wilkinson
137. Dorian Carli-Jones
138. Richard Jandoli
139. Ellis Krusch
140. Erica von Nardoff
141. ND
142. ND
143. Mark Westcott

144. Deborah Dewey
145. Rose Marie Wilson
146. Jeanne Nelson
147. John Markowitz
148. Timothy Raymond
149. Michelle Christenson
150. Michelle Christenson
151. Thom Thacker
152. John Abel
153. Christina Groesbeck
154. Lisa Wood
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158. Tess Fraad-Wolff
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160. Tess Fraad-Wolff
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163. Zoe Strassfield
164. Douglas McAlinden
165. Douglas McAlinden
166. Patricia Altro
167. Patricia Altro

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- 228. William Forrest
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- 231. Carl Murray
- 232. Carrie Gheith
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- 1058. Carla Cherry
- 1059. Alistair Kanaan
- 1060. Elaine Livingston
- 1061. Andrew Phillips
- 1062. Shani Schulman
- 1063. Anne Nelson
- 1064. Bernadette Andalaro
- 1065. Kathy Haverkamp
- 1066. Marlena Lange
- 1067. Elizabeth Shepherd
- 1068. Janet McGarry
- 1069. Carol Myers
- 1070. Robin Blakesly
- 1071. Louis Esposito
- 1072. Marcello Franciamore
- 1073. Nathalie Camus
- 1074. Gerald Bates
- 1075. Cindy Graham
- 1076. Rebecca Novick
- 1077. Ellen Asher
- 1078. Bernadette Andalaro
- 1079. M.E. Monti

- 1080. Jennifer Valentine
- 1081. Marcello Franciamore
- 1082. Stephen Karnisky
- 1083. Paul Ghenoiu
- 1084. Kevin O'Rourke
- 1085. Marie Garescher
- 1086. Nancy Ward
- 1087. Susan Ehrhardt
- 1088. Jordan Lipka
- 1089. Wendy Brawer
- 1090. Rachel Berg
- 1091. Michael Bruckheimer
- 1092. Estervina Bykov-Green
- 1093. Constance Colvin
- 1094. William Malmros
- 1095. Marija Stroke
- 1096. Robert Minnick
- 1097. Lauren Felicione
- 1098. Thomas Moulton
- 1099. Adam Schwartz
- 1100. Murugan Pandian
- 1101. Michelle Renee Shafran
- 1102. Kahlil Goodwyn
- 1103. Stephanie Cybulski

1104.	Lois Klein
1105.	August Oberti
1106.	Michael Gnat
1107.	Mary De Spirt
1108.	Howard Levitsky
1109.	Martin Sticht
1110.	Bennet Brumson
1111.	Melissa Paige
1112.	Sue Maxam
1113.	Sheila Nelson
1114.	Warren Vieira
1115.	Carolyn Clark Pierson
1116.	Christian Perring
1117.	Soretta Rodack
1118.	Kiamesha Sims
1119.	Coleen Gowans
1120.	Mariana Morse
1121.	Daryl Denning
1122.	Ann Hollinger
1123.	Joseph Quirk
1124.	Jean A Marwick
1125.	Mark Walth
1126.	Marianne Pratt
1127.	David Waschman

1128.	Bill King
1129.	Hendricka Samytowski
1130.	Peter Farris
1131.	Nola Heidlebaugh
1132.	Adrienne Yurick
1133.	Cathy Carleton
1134.	Christopher J Jensen
1135.	Mary McGeary
1136.	Barbara Regan
1137.	Rebecca Berlant
1138.	Danny M.
1139.	Thaddea Compain
1140.	Richard Tidd
1141.	Sandy McGovern
1142.	Deni Mack
1143.	Ellen Fleishman
1144.	Patrick Schnell
1145.	Michael Gutleber
1146.	Elaine Krautman
1147.	Daniel Lutzker
1148.	Kathleen R Davis
1149.	Mary Roberts
1150.	A W
1151.	David Licht

- 1152. Alice and Donald Pulver
- 1153. Jeff Morris
- 1154. Karla Kavanaugh
- 1155. Mary Nolan
- 1156. Gene Mackay
- 1157. Nancy Scheck
- 1158. Norman Ladner
- 1159. Paul Meyers
- 1160. Martha Lynch
- 1161. Susan Castelli-Hill
- 1162. Jean Naples
- 1163. Samuel Thorpe
- 1164. Carmen Plaza
- 1165. Philip Compte
- 1166. R Wheeler
- 1167. Herbert Winter
- 1168. Caitie Moore
- 1169. John Schmidt
- 1170. Steven Goldstein
- 1171. Janet Linde
- 1172. Dorothy Walsh
- 1173. Joseph Dulski
- 1174. Barbara Ungar
- 1175. Beatrice Simmonds

1176. Patrick McCann
1177. Ruth Gitto
1178. Mark Tlemann
1179. Karen Intorcia
1180. D R Yale
1181. George Dillmann
1182. Indira Hersey
1183. Sam Wines
1184. Sarah Medeiros
1185. Anne Paschkopic
1186. Brittany Woodell
1187. Brittany Woodell
1188. Sam Wines
1189. Bill Purdue
1190. Ismet Kipchak
1191. George Picchioni
1192. David Bly
1193. Paul Mokhiber
1194. June Mathis
1195. Adger Williams
1196. Leigh McBride
1197. Shani Friedman
1198. Mary Roma
1199. Bill Purdue

1200.	David Bly
1201.	Mary Roma
1202.	Linda Fighera
1203.	Clifford Provost
1204.	James Berry
1205.	Susan Cunningham
1206.	Claudia Leff
1207.	Rudolph Ripp
1208.	Thomas Plant
1209.	Randy Arhambault
1210.	Ally Jones
1211.	Melissa Miller
1212.	Douglas Cooke
1213.	Leah Hallow
1214.	Kerry Burkhardt
1215.	Gerald Bates
1216.	Paul Gullo
1217.	David Klass
1218.	Richard Guier
1219.	Jonathan Fisher
1220.	Paul Kiesler
1221.	Mark Jacquinot
1222.	Peter Sepe
1223.	John Rybicki

- 1224. Joshua Konheim Heffron
- 1225. Jeff Morris
- 1226. Mark Ferguson
- 1227. Rita Racioppo
- 1228. Nanci Nugent
- 1229. Edward Scovell
- 1230. Greg C
- 1231. Katia Iannacome
- 1232. Stephen Appell
- 1233. Mark Rechler
- 1234. Debra Stevens
- 1235. Beverly Bullock
- 1236. Christina DeRespiris
- 1237. Banjo Ettinger
- 1238. Matthew VanBrocklin
- 1239. Lauren A.
- 1240. C.S.
- 1241. Virginia Liebowitz
- 1242. Carol Liebensen
- 1243. Lee Margulies
- 1244. Kitty Savage
- 1245. Colleen Kennedy
- 1246. Karen Greenspan
- 1247. Glenn Hufnagel

- 1248. Nancy Rutenber
- 1249. Donald W. Henderson, PhD
- 1250. John Asvestas
- 1251. Annie Stevenson-King
- 1252. Jill Nicholas
- 1253. Joan Heilman
- 1254. Diane Basile
- 1255. Diane Basile
- 1256. Laura B.
- 1257. Eleanor Joyce
- 1258. Joel Elio
- 1259. George Garber
- 1260. Sarah Apfel
- 1261. Grace Betts
- 1262. Rebecca Berlant
- 1263. Lisle Raught
- 1264. Allan and Louise Gilmore
- 1265. Kathryn Brooks
- 1266. James Maloney
- 1267. Deborah Carroll
- 1268. Andrew Robbins
- 1269. Joyce Shiffrin
- 1270. Chris Washington
- 1271. Audrey Peltz

- 1272. Jaimee Wriston Colbert
- 1273. Louise Pillai
- 1274. Mary Lahovitch
- 1275. Claudia Shapiro
- 1276. Karen Thomas
- 1277. Robin Blakesly
- 1278. Susan Shepard
- 1279. George Ouimet
- 1280. Lourdes Guzman
- 1281. Jack Grimse
- 1282. Conney Joa
- 1283. Sandra Sobanski
- 1284. Stephen Sollins
- 1285. Julie Pellman
- 1286. Mary Baker
- 1287. Elena Lamb
- 1288. Judi Murphy
- 1289. Tamar Schwartz
- 1290. Rosemary Bay
- 1291. Derek Grossman
- 1292. Sean Brown
- 1293. Christine Schmitthenner
- 1294. Madalyn Benoit
- 1295. Deborah Cerreta

1296.	Steve Callahan
1297.	Steve Callahan
1298.	Josine Shapiro
1299.	Barbara Rios
1300.	Larry Federman
1301.	Elaine Kirsch
1302.	Kevin Murphy
1303.	Danielle Rainforth
1304.	Roseanne Gough
1305.	Eric Esposito
1306.	Dennis Wittern
1307.	Sherry Reisch
1308.	Jane Torrence
1309.	Janet Moser
1310.	Janet Moser
1311.	Keba Jones
1312.	Melanie IMiller
1313.	Jack Simel
1314.	Martha Smith
1315.	Stephen Mead
1316.	Stephen Mead
1317.	Judith Ackerman
1318.	Martha Smith
1319.	Midori Furutate

1320.	Jon Reiner
1321.	Suzanne Schaem
1322.	George Sidoti
1323.	Margot VanEtten
1324.	D Griggs
1325.	Laura Dunham
1326.	Jessica Miracola
1327.	Amy Lund
1328.	Al Krause
1329.	Amy Lund
1330.	James O'Dowd
1331.	Al Krause
1332.	James O'Dowd
1333.	Brian Frederick
1334.	Katie Dorgan
1335.	Brenda Lee
1336.	Rosa Smith
1337.	Elizabeth Sen
1338.	Brenday Frey
1339.	Paul Kinsey
1340.	Michael Zamm
1341.	Barrie Olsen
1342.	Stephen Woodard
1343.	Pamela Eck

- 1344. Bill King
- 1345. Kathryn Woodruff
- 1346. Laura Napoleon
- 1347. Toni Scofield
- 1348. Janet Hellner
- 1349. Caren Flashner
- 1350. Alla Sobel
- 1351. Barbara Federman
- 1352. Eric Newman
- 1353. Stephanie Cristoff
- 1354. John Lazarek
- 1355. Angela W
- 1356. Jeff Colton
- 1357. Alex Zackrone
- 1358. Laurent Barral
- 1359. Melanie Stopyra
- 1360. Alexander Sonneborn
- 1361. Darby Tarr
- 1362. Robert Lombardi
- 1363. Sheila Pfeiffer
- 1364. Nydia Lopez
- 1365. Won Ng
- 1366. Lynn Saxton
- 1367. Patrick McCann

1368.	Nicholas Kisiel
1369.	Kara Huberman
1370.	Elena C
1371.	Doreen Harris
1372.	Michael Pittelli
1373.	Karen Peterson
1374.	Rachel Youens
1375.	Lucille Nurkse
1376.	Nancy Spitalnick
1377.	Naomi Lehman
1378.	Jordan Shapiro
1379.	Amanda Smock
1380.	Amanda Smock
1381.	Mini Liu
1382.	Joseph Ferraro
1383.	Elaine Meranus
1384.	Paula Grande
1385.	J Peterson
1386.	Lynn Skibinski
1387.	Anthony Trotta
1388.	Wm Demo
1389.	Tam Spitzer
1390.	Jean Rivlin
1391.	Amy Kalblein

- 1392. Betty Hedgecock
- 1393. Sylvia Rodriguez
- 1394. Benjamin Martin
- 1395. Richard Stern
- 1396. Marilyn Strozak
- 1397. Janet Allen
- 1398. Lucretia Stewart
- 1399. Lu Hamlin
- 1400. Glenn Slaby
- 1401. Richard Bodane
- 1402. Darrell Noel
- 1403. Nadine Godwin
- 1404. Guy Merckx
- 1405. Andre Mirabelli
- 1406. Andrea Zinn
- 1407. Lorraine Rengers
- 1408. James Hamilton
- 1409. Katherine Anderson
- 1410. Mary Angel
- 1411. Candace Voda
- 1412. Hollis Milark
- 1413. William Roberson
- 1414. Stephen Grove
- 1415. Ellen Murphy

1416.	Rutherford Charlot
1417.	Kristen Murphy
1418.	Joseph Lawson
1419.	Frank Hannwacker
1420.	Barbara Polo
1421.	Dara Birnbaum
1422.	Brynn Schmitt
1423.	Diane Praus
1424.	Barabara Polo
1425.	Joslyn Pine
1426.	Renee Purse
1427.	Cave Man
1428.	Michael Gottlieb
1429.	Arlene Macintosh
1430.	Kristen Neufeld
1431.	Paul Kalka
1432.	Leslie Valentine
1433.	Shari Jacke
1434.	Katherine O'Sullivan
1435.	Ann Merley
1436.	Kevin O'Rourke
1437.	Sandra G Prosnitz
1438.	Carol Yost
1439.	Andrea Taylor

1440.	Chris Ness
1441.	Jane Poklemba
1442.	Marie Hall
1443.	Petra Jones
1444.	Sylvia Foley
1445.	Mary Jane DelMastro
1446.	Abby Pariser
1447.	James Schaad
1448.	Jane Rosen
1449.	Miriam Lachenauer
1450.	Joan Raitano
1451.	Arlene Zuckerman
1452.	Sheryl Collins
1453.	Donna Juriga
1454.	Berk Adams
1455.	Octavia McKinney
1456.	Mary Cichon
1457.	G Paxton
1458.	Marcia Migdal
1459.	John Hogan
1460.	Beverly Costello
1461.	Sasha Gibbons Kirby
1462.	Sandra Russell
1463.	Cathy Marczyk

- 1464. Taylor Chouinard
- 1465. Frank Lescinsky
- 1466. Cameron Williams
- 1467. Diane Wade
- 1468. Arthur Degan
- 1469. Teresa Beutel
- 1470. Mary Ann Tober
- 1471. Melissa Chitwood
- 1472. Helene Stoller
- 1473. Rita Jaskowitz
- 1474. Carol Rhea
- 1475. Stephen M Slivinsky
- 1476. Gerry Vergason
- 1477. Lindsay Hoyt
- 1478. Sara Carman
- 1479. Jacquelyn Scioscia
- 1480. Daniel Lutzker
- 1481. Bernice Whiting
- 1482. Jim Eigo
- 1483. Jackie Stolfi
- 1484. Matthew McCarty
- 1485. Shani Schulman
- 1486. Linda Cronin
- 1487. Julie Fissinger

1488.	Cindy Schultz
1489.	Demi Tighe
1490.	Janet Muir
1491.	Mark Mansfield
1492.	Yvonne Simmons
1493.	John Cerullo
1494.	Joan Albert
1495.	C Daniel Chase
1496.	Carolyn Clark Pierson
1497.	Susan Alice Mufson
1498.	Robert Auger
1499.	Richard Hendricks
1500.	Dr. Joyce Schenkein
1501.	R Doty
1502.	Bari Moss
1503.	Donna Collins
1504.	Regina Riesenburger
1505.	Terri Knauber
1506.	Shelly Bernstein
1507.	Mary Jo Butler
1508.	Thomas Kirk
1509.	Kay Olan
1510.	Diana Kaiser
1511.	Tina Shepard

- 1512. Susan Wald
- 1513. Julie Wreford
- 1514. Lisa Pisano
- 1515. Kitty Chen
- 1516. Frances Tinney
- 1517. Kate Lenthall
- 1518. George Brieger
- 1519. Beth Jane Freeman
- 1520. Nina Mojica
- 1521. Miriam Wolff
- 1522. Robert Snyder
- 1523. Amy Benesch
- 1524. Diana Ihmann
- 1525. Rondane Hollar
- 1526. Kristen Brown
- 1527. Virginia Myung
- 1528. Judith Kany
- 1529. Virginia Bottoroff
- 1530. Anthony LaRocca
- 1531. Sarah Hamilton
- 1532. Christina Marquette
- 1533. Moraima Suarez
- 1534. Susan Castelli-Hill
- 1535. Seth Schneider

- 1536. Brigid Vele
- 1537. James Finnigan
- 1538. Robert Pawloski
- 1539. Deborah Domanski
- 1540. John Adreykovic
- 1541. Christian DeFilippo
- 1542. Jennifer Barton
- 1543. John Papandrea
- 1544. Alexandra Tumarkin
- 1545. June Johnson
- 1546. Richard Glinski
- 1547. Paul McCarthy
- 1548. Ellen Lane
- 1549. Kathryn Schneider
- 1550. Robert Stayman
- 1551. Candice Lowery
- 1552. C. F. Massey
- 1553. Robert Fraser
- 1554. Cheryl Frank
- 1555. Anthony Rosati
- 1556. Robert Minnick
- 1557. Bob and Carla Fresco
- 1558. Cory Hall
- 1559. Kjersti Staveland

- 1560. Colleen Powers
- 1561. Karen Slote
- 1562. Katelyn Ball
- 1563. Richard Stern
- 1564. Roy Fischman
- 1565. Rebecca Novick
- 1566. Jason Kania
- 1567. Delma West
- 1568. Dale Goldstein
- 1569. Jonathan Pokorny
- 1570. Sierra Smith
- 1571. Erich Winkler
- 1572. Astrid Jarvis
- 1573. Karen Levine
- 1574. Sophia Sattar
- 1575. Janet Mardfin
- 1576. John Keiser
- 1577. Liana Pei
- 1578. Elizabeth Wesely
- 1579. Catherine Foley
- 1580. Paul Cremo
- 1581. M Rangne
- 1582. Jennifer Valentine
- 1583. Shaun Knutsen

1584.	Daniel Morrison
1585.	Elaine Livingston
1586.	Lynda Lemke
1587.	Jason Saville
1588.	Sondra Catarraso
1589.	Scott Bernstein
1590.	Terry Hasan
1591.	Erin Howard
1592.	Timothy Bogdan
1593.	Eleanor Moretta
1594.	Frances Lyshak-Stelzer
1595.	Joseph Loparcaro
1596.	John Szalasny
1597.	Ann Pilcher
1598.	George Dillmann
1599.	Kenya Pena
1600.	Anna Gibson
1601.	Gladys Tchatal
1602.	Pat Drake
1603.	Nathaniel Williams Jr.
1604.	Scott Teel
1605.	Peg Coogan
1606.	Jack Polonka
1607.	Jean Rogers

- 1608. Dawn Kenyon
- 1609. Thomas Hyde
- 1610. Gail Emich
- 1611. Lisa Owen
- 1612. Joan Kearney
- 1613. Sonia Romero Villanueva
- 1614. Lucy Dewart
- 1615. Erika Shank
- 1616. Rob Furisch
- 1617. Rosanne Krawczun
- 1618. Robet Goetz
- 1619. Douglas Moore
- 1620. Suzanne Wallin
- 1621. Margaret Murray
- 1622. Alsyon Rose
- 1623. Nicole Monforti
- 1624. Andrew Greene
- 1625. Edith Alston
- 1626. Phil Hembury
- 1627. Lynn Slonaker
- 1628. Patricia Brescia
- 1629. Christine Speer
- 1630. Heather Colon
- 1631. Christine Smith

- 1632. Rosemary Darmstadt
- 1633. Richard Coogan
- 1634. Pam McIntosh
- 1635. Chris Baird
- 1636. Dora Odarenko
- 1637. Joshua Kneidl
- 1638. Paul Ames
- 1639. Mario Morales
- 1640. Deborah Hoffman
- 1641. Lily Hopwood
- 1642. Nick Calabro
- 1643. Gery Kouni
- 1644. Nicholas Falletta
- 1645. Maria Miranda
- 1646. Percy Lundeborg
- 1647. Maggie Dalton
- 1648. Laura Siros
- 1649. Joshua Konheim Heffron
- 1650. Kathleen Boone
- 1651. Cathy Weiner
- 1652. Gary Klee
- 1653. Jenna Baiaamonte
- 1654. Janet O'Hare
- 1655. Doug Pneuman

1656.	Ann Hollinger
1657.	Daniel Tainow
1658.	Elisabeth Jakab
1659.	Mark Romer
1660.	Nicole Luciani
1661.	Stephanie MacNish
1662.	David Elman
1663.	Dianne Johnson
1664.	Natalie Kasday
1665.	Popescu Maria
1666.	Olivia Elliott
1667.	Jennifer J Ertel
1668.	Amy Post
1669.	Leanora Fallon
1670.	Julianne Chen
1671.	Rachel Bose
1672.	Jacqueline Crawley
1673.	Kimberly Wade Barcia
1674.	Mimi Bluestone
1675.	Laura Livingston
1676.	Nivo Rovedo
1677.	Madeleine Glick
1678.	Debra Zanzonico
1679.	Jill Greenberg

- 1680. Liana Lang
- 1681. Robert Honders
- 1682. Freya Goldstein
- 1683. Seth Silverman
- 1684. Burton Thelander
- 1685. Heather Isaac
- 1686. Amanda Gotto
- 1687. Sheryl Collins
- 1688. Joanna Harrington
- 1689. Lani Bauer
- 1690. Karen Nelson
- 1691. Lynne Landon
- 1692. Ryan Davis
- 1693. Ian Sheridan
- 1694. Wendi Cohen
- 1695. Martha Gifford
- 1696. Anna Kolovou
- 1697. Elsie Rawllins
- 1698. Stephen Burns
- 1699. Ruka Kato
- 1700. Abigail Holmes
- 1701. Clifford Provost
- 1702. Daniel Obrien
- 1703. Gail Moran

- 1704. James Berry
- 1705. Ashley Hanshaw
- 1706. M Rangne
- 1707. Daniel Lipson
- 1708. Benjamin Martin
- 1709. Catherine Miller
- 1710. Kathryn Schneider
- 1711. Beatrice Simmonds
- 1712. William Malmros
- 1713. Joseph Lawson
- 1714. Melinda Beuf
- 1715. Stephanie Cuellar
- 1716. Jon McFarlane
- 1717. Robert Fraser
- 1718. Alex Zackrone
- 1719. Jonathan Bines
- 1720. Patrick Brennan
- 1721. Al Krause
- 1722. Tavia Gilbert
- 1723. George Fisher
- 1724. Alan Ginsberg
- 1725. Nancy Shulman
- 1726. Joyce Pomeroy Schwartz
- 1727. Leah Hallow

1728.	Tsee Lee
1729.	Hillary Buckingham
1730.	Melissa Paige
1731.	Patrick Mielke
1732.	Andrea Taylor
1733.	Scott Davis
1734.	Marilyn Kaggen
1735.	Leslie Mlawski
1736.	Lilly Knuth
1737.	Catherine Hope
1738.	Rob Furisch
1739.	Barabara Mastorgi
1740.	Joyce McDonald
1741.	Cynthia Hart
1742.	Claudia Leff
1743.	Enid Cardinal
1744.	Diane Englander
1745.	Kara Huberman
1746.	Sandra Naidich
1747.	Karen Cotterell
1748.	Stephen MacNish
1749.	Faye Ellman
1750.	Joyce Shiffrin
1751.	Mr. Rudolph Ripp

- 1752. Rose Marie Wilson
- 1753. Franco de Nicola
- 1754. Brigitte Zimmer
- 1755. Matthew Miller
- 1756. Geraldine Maslanka
- 1757. Kevin Fritz
- 1758. Robert Manning
- 1759. Marilyn Vey
- 1760. Paula Grande
- 1761. Jacalyn Dinhofer
- 1762. Robin Blier
- 1763. Wendi Cohen
- 1764. Andrew and Kathleen Wittenborn
- 1765. Peter Ward
- 1766. Ira Weissman
- 1767. June Fait
- 1768. Tess Fraad
- 1769. James Gray
- 1770. N B
- 1771. Jean Marwick
- 1772. Pat Wagner
- 1773. Kelly DeVine
- 1774. Martha Scoppa
- 1775. Lydia Saderman

1776.	Alison Jena
1777.	Anthony Scrimenti
1778.	Conney Joa
1779.	Caroline Sevilla
1780.	Nancy Rutenber
1781.	Andrea Ivey
1782.	Kathy Devos
1783.	Judith Lasko
1784.	David Crocker
1785.	John Prekurat
1786.	Rebecca Berlant
1787.	Mark Daitsman
1788.	Alyson Shotz
1789.	Joe Tonini
1790.	Nadine Godwin
1791.	Steven Lowenthal
1792.	Thomas Reilly
1793.	Alex Co
1794.	Ellen Zaltzberg
1795.	Judith Davidson
1796.	Richard Guier
1797.	Perry Harris
1798.	Elaine Linet
1799.	William Everdell

- 1800. Valerie Rounds-Atkinson
- 1801. Susan Silverstein
- 1802. Holly Cohen
- 1803. Jason Caramico
- 1804. Arlene Zuckerman
- 1805. Albert Ruben
- 1806. Robert Lombardi
- 1807. Kenya Pena
- 1808. Catherine Wright
- 1809. Gregory Marks
- 1810. Rutherford Charlot
- 1811. Eva Marks-Curatolo
- 1812. Michael Greenstein
- 1813. Lisa Montanus
- 1814. Richard Stern
- 1815. Steven Goldman
- 1816. Donald W. Henderson, PhD
- 1817. Matthew Katz
- 1818. Gail Lebeck
- 1819. John Keevert
- 1820. Michael M.
- 1821. Thomas Kirk
- 1822. Kevin Yost
- 1823. Lori Siemian

1824.	Rutherford Charlot
1825.	Eleanor Joyce
1826.	Kirstin Peterson
1827.	Klaus Proemm
1828.	Arthur Schurr
1829.	Dennis Vecchiarello Sr.
1830.	Robin Blakesley
1831.	Sharon Longyear
1832.	Jerry Koniecki
1833.	Mary Jo Butler
1834.	John Ferrari
1835.	Steve Bloom
1836.	Betsy Kennedy
1837.	Kathe Hertzberg
1838.	Sharon Moore
1839.	Helene Stoller
1840.	Karen Thomas
1841.	Colleen Shetland
1842.	Carolyn Clark Pierson
1843.	Ronald Lemmert
1844.	Betsy Kennedy
1845.	Chris Washington
1846.	Sarah Walling
1847.	Elena Castellano

1848.	Candice Lowery
1849.	Brenda Frey
1850.	Donna Noyes
1851.	Nancy Sheehan
1852.	Diane Basile
1853.	William Wurtz
1854.	Mo Kafka
1855.	Debora Winn
1856.	Audrey Peltz
1857.	Karen Walker
1858.	Karen Kirkhart
1859.	Jennifer Fendya
1860.	Lewis Thompson
1861.	Anthony Miller
1862.	Rosemary Bay
1863.	Stephanie Cybulski
1864.	Mrs. Won Ng
1865.	Lester Rosenzweig
1866.	Cindi Dean
1867.	Rosemarie Pace
1868.	Jennifer Maurizzio
1869.	Dawn Petry
1870.	Mildred Badlu
1871.	S Silvia Rennie

1872.	Rosemary Clifford
1873.	Michael Potvin-Frost
1874.	Jill Nicholas
1875.	X Harris
1876.	Darren Skotnes
1877.	Kanwaldeep Sekhon
1878.	Scott Korman
1879.	Beth Freeman
1880.	Nile Nugenz
1881.	Joselyn Pine
1882.	Susan Spivack
1883.	Christine Naples
1884.	Edward Rengers
1885.	MG Decker
1886.	Aubrae Lamparella
1887.	Rho Levin
1888.	Richard Glinski
1889.	Kate Skolnick
1890.	Maureen Gallagher
1891.	Cheryl Frank
1892.	Peg Coogan
1893.	William Kuehnling
1894.	Craig Stallone
1895.	Marsha Smith

1896.	Joseph Quirk
1897.	Amy Benesch
1898.	Donna Robin Lippman
1899.	Anthony LaRocca
1900.	Marge Othrow
1901.	Ronald Garner
1902.	Phillip Rich
1903.	Virginia Valenti
1904.	Derinda Nilsson
1905.	Derinda Nilsson
1906.	Susan Alice Mufson
1907.	Anne Nelson
1908.	Sharon Nolting
1909.	Michael Gorr
1910.	Lindsay Reeve
1911.	Eric Zinn
1912.	Dara Murray
1913.	Nick Byrne
1914.	Elaine Livingston
1915.	Marie Garescher
1916.	Philip Hope
1917.	Sarah Hamilton
1918.	Daniel Morrison
1919.	Robert Cushing

1920.	Kenneth Baer
1921.	Louise and Allan Gilmore
1922.	Paul GhenoIU
1923.	Hendricka Samytowski
1924.	Jane Sherman
1925.	Scott Teel
1926.	S. Cama
1927.	Marcia Caban
1928.	D. R. Yale
1929.	Terry Phelan
1930.	Margaret Murray
1931.	Deborah Lee Alekel
1932.	Meg Kettell
1933.	Cindy Schultz
1934.	Marion Lakatos
1935.	Judith Littleboy
1936.	Joan Budd
1937.	J. Michael
1938.	August Oberti
1939.	Robin Blier
1940.	Janet Muir
1941.	Krystal Krause
1942.	Sylvia Barnard
1943.	Gale Leonard

1944.	Susan Guastaferrri
1945.	S. Nam
1946.	C M
1947.	Elizabeth R McElrath
1948.	Barbara Kelly
1949.	Shuan Knutsen
1950.	Barbara Johnson
1951.	Kaitlin Fitch
1952.	Ruth Neuwald Falcon
1953.	Jacqueline Birnbaum
1954.	Delma West
1955.	Sally Bowden
1956.	Gabriel Bobek
1957.	Paola Viteri
1958.	Art Shervs
1959.	Harriet Shalat
1960.	Eric Chamama
1961.	Leslye Smith
1962.	Jeremy Carpenter
1963.	Eleanor Joyce
1964.	P V
1965.	George Y Bramwell
1966.	Alan Hoffner
1967.	Maryann Barulich

1968.	Margot VanEtten
1969.	Barbara Karcher
1970.	Kathryn Schneider
1971.	George Brieger
1972.	Vicki Casarett
1973.	Norma Simon
1974.	Linda Allen
1975.	Richard Wolff
1976.	Lynne Mehalick
1977.	Melissa Barnard
1978.	Trevor Summerfield
1979.	NB
1980.	Anna Gibson
1981.	Mary Lester
1982.	Maryanna Moskal
1983.	Jacques Mounier
1984.	Oscar Zamora
1985.	Lloyd Greene
1986.	Betti Franceschi
1987.	Margauerite Scheyer
1988.	Nicolas Estevez
1989.	Dora Hage
1990.	Sheila Stone
1991.	Joshua Konheim Heffron

1992.	Joseph M. Varon
1993.	Cynthia Nelson
1994.	Walter Alton
1995.	Gabino Alvarez
1996.	Duane Greene
1997.	Chris Baird
1998.	Thomas Keane
1999.	Roland D'Amour
2000.	Kate Frangos
2001.	Delia Kulukundis
2002.	Joanna Roy
2003.	Katharine Skolnick
2004.	Catherine Wright
2005.	Thomas Bain
2006.	Edward Rengers
2007.	Paul Packer
2008.	Lisa A Cammett
2009.	John Heyneman
2010.	Ellen Pomeroy
2011.	Marley McDermott
2012.	Jeff McMahon
2013.	Patricia A Sacco
2014.	Sharon McKeiver
2015.	MaryAnn Denning

2016.	Ellen Fox
2017.	Mini Liu
2018.	Stephen MacNish
2019.	Wendi Cohen
2020.	Charles K. Alexander II
2021.	Daniel Klein
2022.	Adam Nazimowitz
2023.	Douglas Kinney
2024.	Antonio Fernandez
2025.	Daryl Pierce
2026.	Iris Rochkind
2027.	Gabriel Bobek
2028.	Tom Van Heeke, Rivian
2029.	Susan Yerry
2030.	John L. Staton
2031.	Wendy Alberg
2032.	Ginger Comstock
2033.	Margaret Gryska
2034.	Marijo Lewandowski
2035.	Julianne Chen
2036.	Franco de Nicola
2037.	Flo Fender
2038.	Nick Vivian
2039.	Jennifer Barton

2040.	Lori Heini
2041.	Peter McKnight
2042.	Lori Nassau
2043.	Robert Fanniff
2044.	JoAnn Pedersen
2045.	Jessica Miracola
2046.	JoAnn Pedersen
2047.	Seth Silverman
2048.	Kathy Devos
2049.	Lawrence Hilf
2050.	Janet Forman
2051.	Alex Kowtun
2052.	Denise Ezrow
2053.	David Wells
2054.	Eric Eisenberg
2055.	Hayden Brockett
2056.	Phil Fram
2057.	Karen Evert
2058.	Sean Adair
2059.	Celeste Winkle
2060.	Lawrence Ross
2061.	Lawrence Ross
2062.	Rev John Long
2063.	Kimberly Dickason

2064.	Mark Wood
2065.	Aitor Suarez
2066.	Kristopher Burrell
2067.	Meagan Fastuca
2068.	Dawn Kenyon
2069.	Robert Cushing
2070.	Anne Marie Bucher
2071.	Peter Etu
2072.	J Pearlman
2073.	Deborah Kieffer
2074.	C de Ben
2075.	Myra Dremeaux
2076.	Tracy Doherty
2077.	Maureen North
2078.	Susan Joyce
2079.	William Johnson
2080.	Susan Suarez
2081.	Sharon Lieberman-Wallace
2082.	Ben King
2083.	Paul GhenoIU
2084.	Lenore Schorr
2085.	Dawn C
2086.	Mary Anne Tokar
2087.	Christine Zaepfel

2088.	Madeleine Jordache
2089.	Herb Oringel
2090.	Barbara Chasin
2091.	Gail Moran
2092.	Peter Gradoni
2093.	Shane Culgan
2094.	Jamie Cooney
2095.	Michele Kaplan
2096.	Tina Masterson
2097.	Katherine Stoessel
2098.	Michael Seckendorf
2099.	Tina Masterson
2100.	Jeanine Wiendl
2101.	Will Morel
2102.	James Peloquen MD
2103.	Jane Beller
2104.	Marge Remmich
2105.	Gregory Vignapiano
2106.	Ronald Sonnenberg
2107.	Melissa SchultzAhearn
2108.	Vicki Fox
2109.	Andrew G
2110.	John Gallagher
2111.	Richard E Beal

2112.	Mary Martin
2113.	Leticia La Magna
2114.	Janet Moser
2115.	Barbara J Krout
2116.	Nivo Rovedp
2117.	Diane Basile
2118.	Maryann Barulich
2119.	Timothy Olyphant
2120.	Lori Feeley
2121.	Jane Lippman
2122.	Gabriel Alberti
2123.	Lucile Dewart
2124.	Jesse Dubinsky
2125.	Nina Sikand
2126.	Mark Daitsman
2127.	Shoshanna Cole
2128.	Liz Piercey
2129.	Robert Lenz
2130.	Mimi Rosenfeld
2131.	Georgeanne Spates
2132.	Vir Feyne
2133.	Lisa Goren-Totino
2134.	Marja Leino
2135.	Olivia Yim

2136.	Gregory Coutinho
2137.	John Fermoil
2138.	Cave Man
2139.	Kimberly Badger
2140.	Nancy Smith
2141.	Cathleen Kelly
2142.	M. Givey
2143.	Janet Duran
2144.	Dimitri Sevastopoulo
2145.	Marge Othrow
2146.	Jennifer Horowitz
2147.	Daniela Riedlova
2148.	Johanna Cummings
2149.	Doris Buxbaum
2150.	Arden Down
2151.	Benjamin Adler
2152.	Fay Forman
2153.	Ruth Siekevitz
2154.	Ruth Siekevitz
2155.	C S
2156.	Ann Marie Cunningham
2157.	Victoria Furio
2158.	Freya Goldstein
2159.	Christopher Comparetta

2160.	Barbara Vitale
2161.	Donald Banaszak
2162.	Mary Loomba
2163.	Laura Kohlschreiber
2164.	Patricia Lasek
2165.	Phillip Compte
2166.	Terry Sullivan
2167.	Maura Angiolillo
2168.	Emily Oaks
2169.	David Ringer
2170.	Chris Saia
2171.	Jeffrey Foster
2172.	Paul Gebhardt
2173.	Ira and ... Weissman
2174.	Gianluca Delvecchio
2175.	Cedric Gottfried
2176.	Holly Swanson
2177.	Marydene Davis
2178.	E Peterson
2179.	Suzanne Golden
2180.	Lisa Stimpson
2181.	Barbra Music
2182.	Marianne Alfano
2183.	Nicholas Prychodko

- 2184. Paul Hofheins
- 2185. Stephen Hopkins
- 2186. Wendy Fast
- 2187. Elizabeth Shehan-Hussein
- 2188. Gordon Abrams
- 2189. Susan Pitzele
- 2190. Melina Hammer
- 2191. Gayle Boesky
- 2192. Sister Sheila Stone
- 2193. Leslie Krygier
- 2194. Kelly Green
- 2195. Stefanka Ilieva
- 2196. Phillip Connor
- 2197. Joel I. Friedman
- 2198. Rosemary A. Kaszuba
- 2199. Robin Lostetter
- 2200. Judith Pickett
- 2201. Bridget Roa
- 2202. S Silvia Rennie
- 2203. Debra Stevens
- 2204. Cubby Terry
- 2205. Jerilyn Sackler
- 2206. Sherra Edwards
- 2207. Rose Marie Wilson

2208. Geraldine Brooks

2209. Matt Probert

2210. Judith Dollenmayer

2211. Joel Leitner

2212. Don Nardone

2213. Karen Frishkoff

2214. Gloria Benedetto

2215. Vicki Shulof

2216. Rehana Huq

2217. Rehana Huq

2218. Cesar Raposo

2219. Susan Steepy

2220. Barbara Stoloff

2221. Gary Frank

2222. Denise Brown

2223. Stacy Gangi

2224. Roseanne Krawczun

2225. Angelo Madrigale

2226. Dennis Fassman

2227. P D

2228. Joyce Bryk

2229. Brynn Schmitt

2230. Mikki Chalker

2231. Pixie Senesac

2232. Remy Fenster

2233. Christopher Casey

2234. Helena de Vengoechea Rudd

2235. Jeanne Friedman

2236. Laura North

2237. Nor Ligotti

2238. Alan Stein

2239. Karen Mussette

2240. Stephanie Cuellar

2241. Allen McPherson

2242. Monica Wiitanen

2243. Kris Berner

2244. Susan Louie

2245. Dianne Noblett

2246. Ho Stirling

2247. Patrick Cairns

2248. B. J. Rahn

2249. Naomi Lehman

2250. Jim Eigo

2251. M Carroll

2252. Jane Campbell

2253. Jan Shapiro

2254. Rebecca Wilk

2255. Patti Weinberg

2256.	David Clayman
2257.	Edith Simpson
2258.	Veronica Schewyen
2259.	Harry Heher
2260.	Richard Gilbert
2261.	Flo Fender
2262.	Daniel O'Brien
2263.	Ursula Leitner
2264.	JP Stiller
2265.	Ron Przybycien
2266.	Emil Montaneli
2267.	Veronica Schewyen
2268.	Angela Carbone
2269.	Doug Leihbacher
2270.	Mary Phillips-Burke
2271.	Michael Cynamon
2272.	Laurel A Helmeyer
2273.	Eric Zinn
2274.	Kara Sprague
2275.	Tova Cohen
2276.	Diana Berardino
2277.	Leslye Smith
2278.	Lisa French
2279.	Jon Gebers

2280.	Paul Schupp
2281.	Paul Rafferty
2282.	Lucille Poleshuck
2283.	Jennifer Valentine
2284.	Eva Butler
2285.	Harry Harrison
2286.	Laura Pakaln
2287.	Suzanne Potter Ironbiter
2288.	Joyce Greenberg
2289.	Ralph DeSorbo
2290.	Lilly Knuth
2291.	Laurie Rowe
2292.	Daniel L Harris
2293.	Jo Roehrig
2294.	Heather Turbush
2295.	Lenore Greenberg
2296.	Mit Rosenberg
2297.	Elizabeth Guthrie
2298.	Patricia Sacco
2299.	Cynthia Edwardson
2300.	Anthony Scrimenti
2301.	Lisa Vasta
2302.	Lih-Fan Chang
2303.	Gerry Levine

2304.	Marsha Pritchard
2305.	Brian Allen
2306.	Marshall Johnson
2307.	Joy Smiley
2308.	Emily Fano
2309.	Linda Faduski
2310.	Mara Lopez
2311.	Scott Korman
2312.	Carol Michelson
2313.	Phyllis Perna
2314.	Russell Chiappa
2315.	Lisa Barron
2316.	Eric Lehman
2317.	Ross Hill
2318.	Howard Levy
2319.	Jean Chagnon
2320.	Carol Myers
2321.	Emily Greenspan
2322.	Chris Goode
2323.	Keitha Capouya
2324.	Barbara Marion Horn
2325.	Michael Gannon
2326.	Michael Keenan
2327.	Mary Marino

2328. Gregg Mayer

2329. Marti Tillinger

2330. Naomi Lehr

2331. Johanna Cummings

2332. Patricia Fetherston

2333. Hasson Harris Wilcher

2334. Sarah Gallagher

2335. Jill Grundfest

2336. Elisa Evett

2337. Caroline Zane

2338. Cynthia Silver

2339. Donna Noyes

2340. Virginia Valenti

2341. S. Norris

2342. Hasson Harris Wilcher

2343. Joan Stanton

2344. Stephanie Stone

2345. Jill Diamant

2346. Phil Chambers

2347. Eva Melas

2348. Emily Metz

2349. Sheila Palevsky

2350. Elizabeth York

2351. Mary J Kennedy

2352. Terry Hasan

2353. Julie Kligfeld

2354. Carolyn Kunin

2355. Wilfredo R. Santiago

2356. William Malmros

2357. Denise Thompson-Slaughter

2358. Ann Mc Garry

2359. Donald Fairman

2360. Roy Berberich

2361. Judy Miller-Lyons

2362. Edward Kilcullen

2363. Kathleen Margulis

2364. Norma Simon

2365. Andrew Bodwell

2366. Nathalie Wangermez

2367. Laurene Meehan

2368. Wendy Wendy

2369. John Gant

2370. Walter Czachorowski

2371. Eugene Lynch

2372. Alyson Shotz

2373. Elaine McMullan

2374. Ines Angel

2375. Andrea Romans

2376. Jackie M Yeager
2377. Ewelina Klimek
2378. Janet Forman
2379. Megan Krieman
2380. Ethan Cornell
2381. Marion Kasselle
2382. Chris Coletti
2383. Kathleen Susman
2384. Linda Grimm
2385. Colleen Scotch
2386. Midori Madigan
2387. Tara Moira McBride
2388. Linnea Etkin
2389. Heather Palmer
2390. Taffy Williams
2391. Frances Tinney
2392. Clementine Swan
2393. Erin Hobaugh
2394. Iz Gonz
2395. Kelley Carey
2396. Steve Stankovic
2397. Tc Barr
2398. Erik Moss
2399. Michael Shannon

2400.	Margaret Woodard
2401.	Carolyn Steinhoff
2402.	Dave Vacca
2403.	Michael Muscato
2404.	Linda Stafford
2405.	Martha Pinnola
2406.	Steven Kaczmarek
2407.	Elliott Rabin
2408.	Leanora Fallon
2409.	Michael Savage
2410.	Maria Ramirez
2411.	Sean Twohig
2412.	Murugan Pandian
2413.	MichelleRenee Shafran
2414.	Mary Guzman
2415.	Luanne DeFelice
2416.	Cormac Graham
2417.	Jordana Schact-Levine
2418.	Deborah Johns
2419.	Jean-Paul Stiller
2420.	Daniel Tainow
2421.	Alyssa Rotella
2422.	Sarah Cornacchio
2423.	Abigail Cummings

2424.	MichelleRenee Shafran
2425.	Bernadette Pachonas
2426.	Peter Morrison
2427.	Susannah Smith
2428.	Charles Browning
2429.	Melba Obertis
2430.	Benjamin Adler
2431.	Michael Klein
2432.	Timothy Dunn
2433.	Helene Gasner
2434.	Kelly Barlow
2435.	Joao Yniguez
2436.	Elizabeth Axford
2437.	Lisa Capone
2438.	Laura Rovinsky
2439.	Jaime Flores
2440.	Elizabeth Broad
2441.	Heidi Kulow-Fishel
2442.	Lily Rosan
2443.	Patty Traube
2444.	Marina Tiedemann
2445.	Chris Proctor
2446.	Dee Buttimer
2447.	Carla Mabanta

2448.	Garry Rissman
2449.	Jennifer Hernandez
2450.	Mary Bunyea
2451.	Katie Kelly
2452.	Robert Curtis, III
2453.	John Gebhards
2454.	Beth O'Brien
2455.	Anuradha Sharma Magee
2456.	Anamyn Turowski
2457.	Audrey Castro
2458.	Michael Madden
2459.	Vickie Ciuccio
2460.	George Kaufman
2461.	Susan Haney
2462.	Susan Carroll
2463.	John Lazarek
2464.	Darci Adams Sciano
2465.	Autumn Herkommer
2466.	Damian Gualdarrama
2467.	Carol Richman
2468.	Thomas Reilly
2469.	Judith Canepa
2470.	Evan Brown
2471.	Sharon Siodmak

2472.	Michael Zamm
2473.	Ann Houston
2474.	Mindy Fortgang
2475.	Bella Brewer
2476.	Christian Elliott
2477.	Katie Doyle
2478.	RJ Kennedy
2479.	Theresa Davis
2480.	Rachel Miller
2481.	Mary Weber
2482.	Rochelle Davidson
2483.	Susan Frost
2484.	Elenna Dunham
2485.	Catherine McCabe
2486.	Meredith Kent-Berman
2487.	Brian Kaye
2488.	Susan Fontanes
2489.	Noah Miedel
2490.	Susan Stair
2491.	Amy Kletter
2492.	Sharon Volckhausen
2493.	Michele Meli
2494.	Sue Elliot
2495.	Trisha Koomen

2496.	Diane Stark
2497.	Alexander Peters
2498.	Marcia Newfield
2499.	Judi Valvo
2500.	Maureen Medina
2501.	Jason Saville
2502.	Emma Matarasso
2503.	Gary and Shirley Cox
2504.	Robert L Remley
2505.	Iliana Memmo
2506.	Heather Stanton
2507.	Christianne McGinn
2508.	Wendy Waterman
2509.	Roy Stock
2510.	Daniel Dutelle
2511.	Angela Orengo
2512.	Jay Greenberg
2513.	Audrey Walen
2514.	Jon Reiner
2515.	Kathleen Martin
2516.	Victoria Harris
2517.	Gail Melhado
2518.	Jean Hodgins
2519.	Samara Davis

2520.	George Riggs
2521.	Clara Payne
2522.	Stephanie Zaiantz
2523.	Maureen Mahoney
2524.	Vicki Burns
2525.	Lynda Lemke
2526.	Alaina Mauro
2527.	Andrei Harabadji
2528.	Danielle Moyer
2529.	Nancy Brothers
2530.	Debra Hover
2531.	Jose Caraballo
2532.	John Fritz
2533.	Jade Hoag
2534.	Brittany Martin
2535.	Karen Pizarro
2536.	Kitty Savage
2537.	Anthony Puliafico
2538.	William Rosario
2539.	Shelley Sheldon
2540.	Barry Maisel
2541.	David Pandori
2542.	Michael Violante
2543.	Nicole Luciani

- 2544. Janet Linde
- 2545. Patrick Cairns
- 2546. Gary Bartholomaus
- 2547. Megan Root
- 2548. Tod Cooperman
- 2549. Jaylen Moraless
- 2550. Jay Grinberg-Ayala
- 2551. Marissa Wolfheart
- 2552. Rolfe Renvyle
- 2553. Domenica Allen
- 2554. William Wachob
- 2555. Jay Blotcher
- 2556. Elaine Weir
- 2557. Richard Ignelzi
- 2558. Ella Wicks
- 2559. Callan Ditmyer
- 2560. Judit Queral Perramon
- 2561. Kerri-Ann Lynch
- 2562. Edith Simpson
- 2563. Sarah S
- 2564. Joan Antczak
- 2565. Pamela Rosenblum
- 2566. Shorty Thai
- 2567. Nethra Rajendran

- 2568. Faith Birchall
- 2569. Julie Wilczak
- 2570. Gabrielle Burnham
- 2571. Emily H
- 2572. Jennie Spector
- 2573. Roger Caiazza
- 2574. Adrainer Coleman
- 2575. Shaun Knutsen
- 2576. Paulina Muratore
- 2577. Madeleine Glick
- 2578. Marguerite Scheyer
- 2579. Miriam Fishman
- 2580. Jean DiPirro
- 2581. Linda Hanna
- 2582. Beth Finger
- 2583. Erik Gustafson
- 2584. Thomas Cali
- 2585. Coree Spencer
- 2586. M Cid
- 2587. Anamyn Turowski
- 2588. Kirsten White
- 2589. Joyce Shiffrin
- 2590. Jayni and Chevy Chase
- 2591. Laoise Mac Reamoinn

2592.	Fernando Valentin
2593.	Nate Belluche
2594.	Wilder Kingsley
2595.	Jean Grayson
2596.	Rashida Paul
2597.	Steven Wood
2598.	Laurie C Wright
2599.	Eileen Laracuenti
2600.	Mary Ann Profilio
2601.	Lisa Owen
2602.	Mark McKinney
2603.	John Carlson
2604.	Therese Kashishian
2605.	Keith Wynne
2606.	Linda Terrasi
2607.	Arlene Zuckerman
2608.	Kenneth Krynicki
2609.	Jacqueline Raven
2610.	Kim Richardson
2611.	Mary Guzman
2612.	Scott Korman
2613.	Robert Lombardi
2614.	Susan Richman
2615.	Liisa Mobley

2616.	Owen Waite
2617.	Kathy Harris
2618.	Cynthia Charvala
2619.	Michele Johnson
2620.	Jayme DiGiovanni
2621.	Jessica Enzmann
2622.	Mara Lopez
2623.	Paula Neville
2624.	Gabriele Schafer-Fracaro
2625.	Stephanie Gartner
2626.	Mary Troland
2627.	Amy Wolfe
2628.	Stephen Davie
2629.	Heather Colon
2630.	Matthew Kressel
2631.	Julie Pellman
2632.	Ralph Ferrara
2633.	Joseph Quirk
2634.	Rachel Potasznik
2635.	Jeff Schumann
2636.	Kay Johnson
2637.	Paul GhenoIU
2638.	Linda Millemaci
2639.	Cecilia Barbosa

2640. Anthony Straka
2641. William Kuehnling
2642. Kathleen Porter
2643. Karen Greenspan
2644. Helen Kotzky
2645. Frank Davis
2646. Irene Franck
2647. Ben Wescoe
2648. Jacob Factor
2649. Marleen Schussler
2650. Roman Capelli
2651. Marina Barry
2652. Susanne Spring
2653. Barbara Barone
2654. Edythe Ann Quinn
2655. Gordon Abrams
2656. jl keith
2657. Rehana Huq
2658. Janis Pforsich
2659. Mark Johnson
2660. Sheila Slater
2661. Dorothy Walsh
2662. Rita-Ann FitzGerald
2663. Janet Lenichak

2664.	Christine Caredda
2665.	Douglas Bellizzi
2666.	Michael Gelfer
2667.	Diane Perea
2668.	Thomas Pienkos
2669.	Millie Schaefer
2670.	Susan Zeiger
2671.	Emily Stewart
2672.	Terry Gordon
2673.	Daniel Lipson
2674.	Toby Finneman
2675.	Diane Slowik
2676.	Andrew Kurzweil
2677.	Ellen Banks
2678.	Nardo Poy
2679.	Heather McSherry
2680.	Sandy Sobanski
2681.	Thomas Mineo
2682.	Kim Haynes
2683.	Dave Palughi
2684.	Deanna D'Onofrio
2685.	Reinaldo Loperena
2686.	Marianne Dietrich
2687.	Marie Garescher

- 2688. Autumn Blanchard
- 2689. Arthur & Margery Groten
- 2690. Cathy Cripps
- 2691. Barbara Forest
- 2692. Daved Wachsman
- 2693. Marcia Case
- 2694. Lloyd S Jones
- 2695. Edward Temple
- 2696. Catherine Clifton
- 2697. Robert Shansky
- 2698. Joanna Taylor
- 2699. Faith Yi
- 2700. Patricia Altro
- 2701. Linda Agoston
- 2702. Mark Mansfield
- 2703. Lynn Slonaker
- 2704. Gregory Msrks
- 2705. Elizabeth Mohony
- 2706. Eva Marks
- 2707. Daniel O'Brien
- 2708. Ehren Borg
- 2709. Robert Ciesielski
- 2710. Dominic Gambaiani
- 2711. Catherine Smith

2712.	Barbara Federman
2713.	Cara Kilduf
2714.	Denise Cameron
2715.	Rob Stein
2716.	Joe Dyba
2717.	Ellis Koch
2718.	Elizabeth Hegeman
2719.	Duncan Brown
2720.	Alan Mack
2721.	Jessica Thompson
2722.	Alex Zackrone
2723.	Brenda Campbell
2724.	Andrew Joncus
2725.	Nancy Nardella
2726.	Yuxiao Lei
2727.	Gail Sullivan
2728.	Joseph Tonini
2729.	Maria Asteinza
2730.	Katie Garton
2731.	Judith Lasko
2732.	Justin Cohen
2733.	Alfred E And Ruth S Smith
2734.	Alice Dunsker
2735.	Belinda Hughes

2736.	Elisabeth Jakab
2737.	Eileen Miller
2738.	David Middleton
2739.	Rita Jaskowitz
2740.	Janice Fleischman Eaton
2741.	Nora Gaines
2742.	Mildred Gittinger
2743.	Mergime Fuduli
2744.	Evelyn Barish
2745.	David Mondejar
2746.	Arthur Heubner
2747.	James Maloney
2748.	Russell Chiappa
2749.	Kelly Devine
2750.	Annette Fesi
2751.	Todd Smith
2752.	James Hamilton
2753.	Carolee Reagan
2754.	Phil Troutman
2755.	Brad Berg
2756.	Michele Temple
2757.	David Friedman
2758.	Alina Wilczynski
2759.	Vera Depalma

2760.	Cecilia Barea
2761.	Andy Chapman
2762.	Eleanor Lange
2763.	Leslie Mankes
2764.	N Nadine Godwin
2765.	Joann Pedersen
2766.	Pamela Watt
2767.	Janice Bernard
2768.	Carolyn Bartholomew
2769.	Mary Marino
2770.	Tim Cook
2771.	Eric Bare
2772.	Wayne Schober
2773.	Renee Arnett
2774.	Katy Yang
2775.	Laurie Aron
2776.	Allen Grieco
2777.	Lenore Greenberg
2778.	Barb Mccarthy
2779.	Brenda Woodward
2780.	T. F.
2781.	Robert Draper
2782.	Richard Pate
2783.	Richard Glinski

2784.	Neil Stark
2785.	Myra Dremeaux
2786.	Jen Horowitz
2787.	Bartholomew Horn
2788.	John David
2789.	Virginia Donnelly
2790.	David Porteous
2791.	Joanna Herrington
2792.	Paul Burns
2793.	Wendy Scherer
2794.	Franco and Kathie Denicola
2795.	Belin L
2796.	Ben Martin
2797.	Sharon Murphy
2798.	Ralph DeSorbo
2799.	Isabel Sadurni
2800.	Edward J Berry
2801.	Louis Esposito
2802.	Jessica Barrett
2803.	Ann Seligman
2804.	James Howell
2805.	Carol Yost
2806.	Thomas Terrizzi
2807.	David Case

2808.	Scott Sasso
2809.	Gregory V
2810.	Lori Siemian
2811.	Maura Angiolillo
2812.	Lauren Yates
2813.	Olivia Ciacci
2814.	Pf Bauer
2815.	Louis Chorba
2816.	Kathleen Corby
2817.	Judith Dumitru
2818.	Kathryn Freed
2819.	Michael Farley
2820.	Ana Plaktina
2821.	Harold Veeder
2822.	Ronald Ryer
2823.	Elaine Kirsch
2824.	Elizabeth Moseman
2825.	Lilly Knuth
2826.	Lynda Lemke
2827.	Dennis King
2828.	Kim Palmo
2829.	Ann Heidenreich
2830.	Ross Hill
2831.	Laura Peskin

2832.	Claudia Leff
2833.	Jeanne Fox-Friedman
2834.	Joy Swensen
2835.	Ellen Fleishman
2836.	Mary Levitt
2837.	Barbara Vitale
2838.	Eric Laine
2839.	Anshul Gupta
2840.	Ellis Krusch
2841.	Kathy Nizzari
2842.	Kara Huberman
2843.	Joslyn Pine
2844.	Jane Young
2845.	Albert Fredericks
2846.	Helene Walkowicz
2847.	Pat Hackbarth
2848.	Karen Desmond
2849.	Mark Hollinrake
2850.	robin Eldridge
2851.	Laura Napoleon
2852.	Kimberly Badger
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2854.	Bettina Goodall
2855.	Paula Grande

2856.	Jack Polonka
2857.	Susan Demark
2858.	Gilbert Sabater
2859.	herbert rosenblum
2860.	John Miller
2861.	Vicky Harrington
2862.	Lawrence Midura
2863.	Camille Doucet
2864.	Kathryn Lustig
2865.	Mary Taffet
2866.	Alex Stavis
2867.	Evan Lawrence
2868.	Kathleen Wittenborn
2869.	David Weeks
2870.	Thadeus Dziekonski
2871.	Dennis Fassman
2872.	Eddie Ward
2873.	Barry Smith
2874.	Chris Proctor
2875.	Ellen Neumaier
2876.	Elaine Shuster
2877.	Patricia Salcedo
2878.	Eric Zinn
2879.	Donald Johnson

2880.	Jose Leroux
2881.	Sonia Kragh
2882.	Alexandra Tumarkin
2883.	Lynne Teplin
2884.	Juli Shields
2885.	Esther Devito
2886.	Laura Taylor
2887.	Sheila Stone Gnsh
2888.	Susan Hoyt -O'Neill
2889.	Scott Wasserman
2890.	Pedro J Camacho
2891.	Cathey Billian
2892.	May Ze
2893.	Renee Simon
2894.	Sara Bloom
2895.	Marian Hart
2896.	Rita Racioppo
2897.	Rachel Gordon Bernstein
2898.	Ira Gottlieb
2899.	Patricia Taylor
2900.	John Andreykovic
2901.	Kathy Murray
2902.	Carolee Reagan
2903.	Roy Fischman

2904.	Mary Gail
2905.	Edward Rengers
2906.	Derinda Nilsson Nilsson
2907.	X Harris
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2909.	Thomas Tyson
2910.	Edward & Marion Lakatos
2911.	Merle Molofsky
2912.	Kathryn Kassner
2913.	Marlena Lange
2914.	Bill Leavitt
2915.	Gerald Hassett
2916.	Jeremy Carpenter
2917.	Mary Lester
2918.	Michael Prince
2919.	Barbara Martin
2920.	Heather Mitchell
2921.	Mark Hochman
2922.	Colette Flake
2923.	Jordan Shapiro
2924.	Stephen Hopkns
2925.	John Heyneman
2926.	Jean Chagnon
2927.	Enid Cardinal

2928.	Daniel Ward
2929.	Rose Marie Wilson
2930.	Mary Anne Barrington
2931.	Kathy Haverkamp
2932.	Peter Shurman
2933.	Laurie Rowe
2934.	Nicole Rosenthal
2935.	Daniel Schlagman
2936.	Rondane Hollar
2937.	Robin Blakesley
2938.	Martha Perlmutter
2939.	Ned Milligan
2940.	Patricia Harlow
2941.	Shirley Smith
2942.	Mary De Spirt
2943.	David Rosenfeld
2944.	Adriano Chinellato
2945.	Linda Darby
2946.	Gery Kouni
2947.	Eleanor Worth
2948.	Joseph Custer
2949.	Martin Mutaftchiev
2950.	Brian Frederick
2951.	Martin Lupowitz

2952.	Ralph Baker
2953.	Orna Safer
2954.	Alfred Wheaton
2955.	Hannah Leshaw
2956.	Demerise Tighe
2957.	David Inglis
2958.	Mark Westcott
2959.	Donald Ray
2960.	Jenna Baiamonte
2961.	Seth Shulman
2962.	Jim Derzon
2963.	Donald Banaszak
2964.	Liam Winters
2965.	Julianne Wiesner-Chianese
2966.	Charlie Ferguson
2967.	Alrun Steinrueck
2968.	Janet Moser
2969.	Lynn Baron
2970.	Steven Nasta
2971.	Ruth Bloom
2972.	Mary Tober
2973.	Larraine Best
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2975.	Stephanie Cybulski

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2980.	Julianne Chen
2981.	G. Paxton
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2983.	Shyama Orum
2984.	Marc Westler
2985.	Octavia Mckinney
2986.	Kristin Cucolo
2987.	Kelly Doolittle
2988.	Nick Gershberg
2989.	Sharon Nolting
2990.	Joe Russo
2991.	Jennifer Marinilli
2992.	Jennifer Marinilli
2993.	Anna Gasner
2994.	Cressida Wasserman
2995.	Elizabeth Cronin
2996.	Peter Mcknight
2997.	Andrew Weisman
2998.	Danielle Thomas
2999.	Steph Corry

- 3000. Lester Rosenzweig
- 3001. Scott Bernstein
- 3002. Joan Agro
- 3003. Helen Bland
- 3004. Peter Sheridan
- 3005. Micahel Muscato
- 3006. Karen Thomas
- 3007. James Mulder
- 3008. Kristen Malsheimer
- 3009. Paul Lipton
- 3010. Suzanne Schaem
- 3011. Harold Corwin
- 3012. Jack Kanack
- 3013. Lorraine Cooper
- 3014. Monika Buffamonti
- 3015. Stacy Galiatsos
- 3016. Vesa Kaakkuriniemi
- 3017. Claire Levy
- 3018. Doreen Curtin
- 3019. Ellen DeFrancesco
- 3020. John Kim
- 3021. Sue Sauvageau
- 3022. Joanne Corey
- 3023. Jason Schager

- 3024. Roni Unger
- 3025. Marianne Montero
- 3026. Deborah Hoffmann
- 3027. Gretchen Funnell
- 3028. Victoria Furio
- 3029. Norman Feller
- 3030. Linda Ng
- 3031. Yvette Hewitt
- 3032. Jennifer Barton
- 3033. Jack Alexander
- 3034. Frances Milberg
- 3035. Marthe Schulwolf
- 3036. Mark Christensen
- 3037. Mary Baker
- 3038. Jean-Claude Delettrez
- 3039. Anthony Giacchino
- 3040. Daniel OBrien
- 3041. Ada Frasca
- 3042. Gina Cashier
- 3043. Lindsay Quillen
- 3044. Rose Christie
- 3045. Catherine Cornbleth
- 3046. Sarah Long
- 3047. William Van Mossevelde

3048.	Judith Tarasek
3049.	Marija Stroke
3050.	Jay New
3051.	Claire Regan
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3053.	Dave Garber
3054.	Ann Aurelio
3055.	Martha Pinnola
3056.	Jennifer Bechard
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3058.	Bill Ryan
3059.	John Keegan
3060.	Lucy Gowrie
3061.	Lois Jensen
3062.	Adam Marczyk
3063.	Mark Deka
3064.	Linda Kubick
3065.	Michael Rosenthal
3066.	Judith Tarasek
3067.	Louise Macchia
3068.	Bill Klein
3069.	Daniel Morrison
3070.	Lea Gina White
3071.	Diane Sheffield

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3076.	Andrei Harabadji
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3078.	jenna Baiamonte
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3085.	Edward and Gail Temple
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3095.	Charles Neidich

3096.	Brian Frederick
3097.	Oslyn Grant
3098.	Steven Viola
3099.	Christopher Comparetta, Ms
3100.	Joseph Ballard
3101.	August Oberti
3102.	Scott Wasserman
3103.	Nan Schmid
3104.	Louis Esposito
3105.	Gail Ricciuti
3106.	Benedict Ho
3107.	Kelly Robinson
3108.	francine Miller
3109.	Nancy Klein
3110.	Patricia Altro
3111.	Joslyn Pine
3112.	Steven Harris
3113.	Marcia Migdal
3114.	Barbara Ring
3115.	Mary Levitt
3116.	Any Odonnell
3117.	Jeanne Friedman
3118.	Merle Molofsky
3119.	Ken Baer

3120. Stacie Wogalter
3121. Franco De Nicola
3122. Frances Feil
3123. Jason Kania
3124. Anne Smith
3125. Ian Wilder
3126. Kathleen Corby
3127. Robert Ploss
3128. Jonathan Bines
3129. Robert Pawloski
3130. Lise Brenner
3131. Jessica Lunt
3132. Marianne Dietrich
3133. Elliot Pliner
3134. Jo Ann Miola
3135. Beau Bushor
3136. Gianluca Delvecchio
3137. G. Paxton
3138. Marina Barry
3139. Jeff Morris
3140. Gilbert Sabater
3141. Abby Wolf
3142. Linda Millemaci
3143. Sandra Sobanski

3144.	Arleen Johnson
3145.	Lisa Stimpson
3146.	Beverley Shields
3147.	Michele Temple
3148.	Sheryl Collins
3149.	Cynthia Spencer
3150.	Nicholas Olivari
3151.	John Prybylski
3152.	Scott Bernstein
3153.	ecmalone41@gmail.com Malone
3154.	Alan Mack
3155.	Michael Gelfer
3156.	Diane Slowik
3157.	Edward Berry
3158.	Deborah Stewart
3159.	Laurence Reilly
3160.	Clifford Provost
3161.	Mary Lahovitch
3162.	Dale Goldstein
3163.	Pilar Iwankiw
3164.	Ginger Comstock
3165.	Scott Davis
3166.	Mildred Gittinger
3167.	David Latham

- 3168. Laura Napoleon
- 3169. Rinku Bhattacharya
- 3170. Lynda Lemke
- 3171. Alex Stavis
- 3172. Virginia Donnelly
- 3173. Christine Wasko
- 3174. Marion Lakatos
- 3175. Maura Angiolillo
- 3176. Belinda Hughes
- 3177. Gery Kouni
- 3178. Jack David Marcus
- 3179. Steve & Nancy Gould
- 3180. Vincent Colletti
- 3181. Katia Iannacome
- 3182. Alrun Steinrueck
- 3183. Steve & Nancy Gould
- 3184. Alice Shields
- 3185. Nancy Vincent
- 3186. Benjamin Martin
- 3187. Jan Brenner
- 3188. Jessica Barrett
- 3189. Susan Wilcenski
- 3190. Beckie Hidy
- 3191. Helen Shaskan

3192.	Mark Mansfield
3193.	Anne Conway
3194.	Maria Asteinza
3195.	Paul Lipton
3196.	Mary Baker
3197.	Isobel Gillen
3198.	Roman LoBianco
3199.	Kristen Brown
3200.	JoAnn Pedersen
3201.	Maria Schmidt
3202.	Terri Schneider
3203.	Laurence Trott
3204.	Francoise Cosgrove
3205.	Susan DeMark
3206.	Gloria Sage
3207.	Pippa Pearthree
3208.	Akiko Hagipoli
3209.	Kara O'Neill
3210.	Sheila Sheridan
3211.	Carolee Reagan
3212.	Al Wheaton
3213.	Daniel Schlagman
3214.	Lawrence Midura
3215.	Daryl Odhner

3216.	Mary Ann Tober
3217.	Diana Heckman
3218.	Diana Heckman
3219.	Candela Prol
3220.	Julie Pellman
3221.	Walter Alton
3222.	Donald W. Henderson, Ph.D.
3223.	Rondane Hollar
3224.	Ellen Fleishman
3225.	Robin Blakesley
3226.	Carol Mcloughlin
3227.	Lisa Dates
3228.	Daniel Sorkin
3229.	MacClurg Vivian
3230.	Eric Newman
3231.	Nancy Sheehan
3232.	Brenda Campbell
3233.	Nora Walker
3234.	Guy Jacob
3235.	Sharon Nanos
3236.	Gary Cunningham
3237.	John Heyneman
3238.	Kathryn Kassner
3239.	Renee Arnett

3240. Bill Nowak

3241. Audrey Peltz

3242. Bruce Burns

3243. Jay Blackman

3244. Rosanne Gaylor

3245. Andrew Kurzweil

3246. Nancy Brothers

3247. Jeremy Carpenter

3248. Nadine Godwin

3249. X Harris

3250. Jake Rubinsky

3251. Joanna Herrington

3252. Enid Cardinal

3253. Patricia Taylor

3254. Judith Wine

3255. Vivian Del Valle

3256. Ross Hill

3257. Mary Thorpe

3258. Sheila Ward

3259. Sheila Ward

3260. Diane Perea

3261. William Kuehnling

3262. Cathey Billian

3263. Michael Muscato

3264.	Pedro Camacho
3265.	Kristin Acocella
3266.	Jeremy Portwood
3267.	Susan Sehm
3268.	Stephanie Bershad
3269.	Paula Grande
3270.	Elisa Evett
3271.	Joyce Robinson
3272.	Jim Derzon
3273.	Will Edwards
3274.	Sandra Chapman
3275.	Brenda Vine
3276.	Irene Best
3277.	David Mondejar
3278.	Leslie Potter
3279.	Dorian Fulvio
3280.	Tamar Schwartz
3281.	Joseph Collins
3282.	Hal Smith
3283.	Jerome McNerney
3284.	Barbara Gulino
3285.	Ellis Krusch
3286.	Scott Clark
3287.	Joseph Quirk

3288. Gerard Stockmeyer

3289. Dorothy Walsh

3290. Jim Gross

3291. Katherine Jueds

3292. R Stein

3293. Joseph M. Varon

3294. Cynthia Fredrick

3295. Liz Galst

3296. Ramelcy Uribe

3297. Luz Betancourt

3298. Barbara Krout

3299. Sheila Kelley

3300. Vesa Kaakkuriniemi

3301. William Ryan

3302. David Babcock

3303. Kathleen Brown

3304. David Rosenfeld

3305. Cherie Jemsek

3306. Anna Gasner

3307. Bonnie Lur

3308. Julianne Chen

3309. Holly Cohen

3310. Molly Spalding

3311. Art Hanson

- 3312. Haley Peters
- 3313. Carol Birchwale
- 3314. Jeffrey Levitt
- 3315. Jerry Banks
- 3316. Raymond Majewski
- 3317. Pat Holbrook
- 3318. Kevin Barber
- 3319. Linda C Kubick
- 3320. Bob Craig
- 3321. Jane Markley
- 3322. Matthew Yancey
- 3323. Janice Fleischman Eaton
- 3324. Jean-Claude Delettrez
- 3325. Barbara Selva
- 3326. Sarah Alice Shull
- 3327. Mary Kenny
- 3328. Darren Aronofsky
- 3329. Edward Forte
- 3330. Beau Harbin
- 3331. Geraldine Schiavone
- 3332. Peter Guardalabene
- 3333. Jeffrey Firth
- 3334. Gina Cashier
- 3335. William Deckelbaum

- 3336. Andrew McGoeey
- 3337. James Moore
- 3338. Jay New
- 3339. Lindsay Quillen
- 3340. Patricia Brescia
- 3341. Edward Goldstein
- 3342. Judith Consigli
- 3343. Lalita Malik
- 3344. Marzana Hassan
- 3345. Lucy Gowrie
- 3346. Mary Baker
- 3347. Linda Yerrasi
- 3348. Valerie A Spring
- 3349. Caryn Coville
- 3350. Jude Gorjanc
- 3351. Linda Murphy
- 3352. Stephen Heinzelman
- 3353. Run The
- 3354. Ann Mulligan
- 3355. Edward & Gail Laurson
- 3356. Danielle Alessandra
- 3357. Brian Preston
- 3358. Jane Wiley
- 3359. Terrance Ryan

3360. Salvatore Angelino
3361. Jennifer Barton
3362. Nardo Poy
3363. John Kim
3364. Beatrice Simmonds
3365. Kasey Jueds
3366. Charissa Collazo
3367. James Howell
3368. Dominic Gambaiani
3369. Elizabeth Koltun
3370. Marleen Schussler
3371. Kyle Gage
3372. Jack Polonka
3373. Ned Milligan
3374. Michael Jaffe
3375. Faith Yi
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3377. Gianluca Delvecchio
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3383. Scott Sasso

3384. Noreen Dean Dresser

3385. Andrew Kurzweil

3386. Sandra Sobanski

3387. Dan Batchelor

3388. Alex Zackrone

3389. Emma Galvin

3390. Deborah Stein

3391. Myra Dremeaux

3392. Lynn Slonaker

3393. Jim Berger

3394. Sidney Harring

3395. Francisco Velez

3396. Linda Agoston

3397. Benjamin Martin

3398. Tavia Gilbert

3399. Claudia Leff

3400. Mikki Chalker

3401. Elise Lieberman

3402. T. F.

3403. Lauren Tartaglia

3404. Shari Jacke

3405. Karen Biesanz

3406. Susan Domina

3407. Christina Raptis

3408.	Neal Madnick
3409.	Leslie Mankes
3410.	R. Potasznik
3411.	Louis Esposito
3412.	Gene Young
3413.	Harold Jacobowitz
3414.	Ellen Fleishman
3415.	Esther DeVito
3416.	Alan Mack
3417.	Michael Muscato
3418.	Michael Gannon
3419.	Greg Rieves
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3423.	Tricia Lisa
3424.	Brenda Vine
3425.	Mary Finneran
3426.	Jessica Barrett
3427.	Michael Flannery
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3430.	Robert Liebman
3431.	Gilbert Sabater

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3440.	Catherine White
3441.	Laurie Rowe
3442.	Pilar Iwankiw
3443.	William Malmros
3444.	Scott Apicella
3445.	Kristin Winkler
3446.	Regina Riesenburger
3447.	Muhammad Hayan
3448.	Kelly DeVine
3449.	Andrew & Kathleen Wittenborn
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3451.	Michael Rosenberg
3452.	Jillian Dresser
3453.	Susan Zeiger
3454.	Matt Maclean
3455.	Daniel Lipson

3456. Paul Lipton

3457. Alix Keast

3458. Jennifer Marinilli

3459. Eric Newman

3460. Matthew Kressel

3461. Clifford Provost

3462. Kay Johnson

3463. Carol Kessler

3464. Peter Gradoni

3465. Leslie Krygier

3466. Nancy Kushner

3467. Nora Gaines

3468. Michael Schilke

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3470. Bob Rushford

3471. Donald W. Henderson, Ph.D.

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3473. Patricia Altro

3474. Rita Jaskowitz

3475. Joanna Grinberg-Ayala

3476. Lester Rosenzweig

3477. Jason Black

3478. Ann Kistler

3479. Arlene Schenker

3480.	Robert Ciesielski
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3483.	Mina Tang
3484.	David Muir
3485.	Jane Young
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3487.	Omar Abraham
3488.	Anna Plaktina
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3492.	David Shore
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3494.	Karl Wirtenberger
3495.	Bettina Hansel
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3498.	Joy Swensen
3499.	George Dillman
3500.	Barbara Prato
3501.	Dean Gallea
3502.	Laura Taylor
3503.	Theresa Wiecezak

3504.	Kara Huberman
3505.	Ursula Leitner
3506.	Jay Blotcher
3507.	Stephen Ring
3508.	Jeff Sherman
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3512.	Valerie Rounds-Atkinson
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3516.	Jerome McNerney
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3523.	Dianne Ferriss
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3526.	Sharon Hammond
3527.	Walter Simpson

3528.	Celeste Hill
3529.	Jim Derzon
3530.	Edward Rengers
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3534.	Sara Gothelf-Bloom
3535.	Rondane Hollar
3536.	Ellen Lowitt
3537.	Daniel Schlagman
3538.	Janet Moser
3539.	Elizabeth Toohig
3540.	Marilyn Rhodes
3541.	Steven Nasta
3542.	X Harris
3543.	M.E. Monti
3544.	Dale Goldstein
3545.	Merle Molofsky
3546.	Rebecca Novick
3547.	John David
3548.	Kathy Haverkamp
3549.	Scott Thomas
3550.	Ted Neumann
3551.	Robin Blakesley

3552. Vicki Casarett
3553. Manuel Rodriguez
3554. Manuel Rodriguez
3555. Anne Cimino
3556. Bernadette Andalaro
3557. Rinku Bhattacharya
3558. Nadine Godwin
3559. Ellen Beschler
3560. Candice Lowery
3561. Laura Anastasio
3562. Y Saturen
3563. Michael Pittelli
3564. Marley Mcdermott
3565. Julie Parisi Kirby
3566. Brett Baginski
3567. Susan Wulff
3568. Katrina Maloney
3569. Janet Harmon
3570. Kevin Murphy
3571. Stephanie Lieber
3572. Mary Townsend
3573. Linda Curtis
3574. Mary Bautista
3575. Linnea Roy

- 3576. Peter Ward
- 3577. Ralph Delano
- 3578. Douglas Smyth
- 3579. Roni Ginsberg
- 3580. Gery Kouni
- 3581. Anne Marie Bucher
- 3582. Julianne Chen
- 3583. Emily Stewart
- 3584. Carolee Reagan
- 3585. Rita Racioppo
- 3586. Kenneth Porter
- 3587. Richard Winchell
- 3588. Beecher Smith-Stackhouse
- 3589. Janet Muir
- 3590. Daniel Spilman
- 3591. Cristine Betancourt
- 3592. David Campbell
- 3593. Heather Stanton
- 3594. Brian Frederick
- 3595. Brian Frederick
- 3596. Aitor Suarez
- 3597. Matthew Stehr
- 3598. Cynthia McCloskey
- 3599. Brenda Campbell

3600.	Jim Buonocore
3601.	Haley Peters
3602.	Christine Walter
3603.	Suzanne Schaem
3604.	Sheila Kelley
3605.	Marianne Dietrich
3606.	Babette Puzey
3607.	Marybeth Diss
3608.	Allen Altland
3609.	Sue Nuccio
3610.	Lori Siemian
3611.	Mary Lou Zeis
3612.	Sue Nuccio
3613.	Jennifer Barton
3614.	Linda C Kubick
3615.	Sarah Wilson
3616.	Ron Morrison
3617.	Samantha Mantua
3618.	Jeanette Kennidy
3619.	Steve Hopkins
3620.	Sh Parrish
3621.	Pamela Haun
3622.	Kathy Nizzari
3623.	Patricia Harlow

3624.	Carol Curtis
3625.	Linda Millemaci
3626.	Jerry Tobe
3627.	Tammy Fenske
3628.	Phyllis Ginsberg
3629.	Royal Graves
3630.	Daniel Rausch
3631.	Justina Gruling
3632.	Mary Lebert
3633.	Mary Thorpe
3634.	Jessica Hayes
3635.	Bernard Yozwiak
3636.	Stephanie Hitztaler
3637.	Karen Fedorov
3638.	Walter Wells
3639.	Caryn Graves
3640.	Janet McClain
3641.	J. Cuci
3642.	Erin Lavery
3643.	Judith Coheh
3644.	Virgil Pauls
3645.	Pamela Haun
3646.	Kathy Wang
3647.	Linda Murphy

3648.	Earlene Carter
3649.	Steven Ramar
3650.	Shirlene Harris
3651.	M. Virginia Leslie
3652.	Sarah Mullins
3653.	Barbara Schrier
3654.	Kristin Womack
3655.	Hannah Leshaw
3656.	Earl Grove
3657.	Travis Dickson
3658.	Philip De Vos
3659.	Ori Clemons
3660.	Symma Rich
3661.	Cathy Arnesen
3662.	Kathleen Dickerson
3663.	Stuart Francis
3664.	Ysan Reischke
3665.	Dottie Buch
3666.	Teresa Neidich
3667.	Lisa Bergerud
3668.	Anna Cowen
3669.	Sara Knauz
3670.	Eric Knaak
3671.	Tammi Vinci

3672.	Stephen Weir
3673.	Michael Perez
3674.	Daniel C
3675.	Ruth Talley
3676.	Carol McCord
3677.	Mia Hutchinson-Shaw
3678.	Stacey Riccardi
3679.	Jim Long
3680.	Anne Henson
3681.	Danielle Bolander
3682.	Martin Schaub
3683.	Catherine Tsarouhtsis
3684.	Emily Metz
3685.	Chris Grill
3686.	Angel Garcia
3687.	Martin Manjak
3688.	Kevin Oldham
3689.	Lynn Saxton
3690.	Miriam Patton
3691.	Jonathan Maller
3692.	Randi Wintamute
3693.	Diane Collins
3694.	Deborah Dewey
3695.	Veronica Schedyen

3696.	Martha Porter
3697.	A P Koedt
3698.	Stephanie Sherwood
3699.	Richard Sturgeon
3700.	Al Krause
3701.	Emily Kratz
3702.	Lauren Lichtman
3703.	Nenad Jerzabek
3704.	Joseph Kollar
3705.	Juan Rivera
3706.	Gabriel J. Gomes
3707.	Lisa Cohen
3708.	Corneilsha Malcom
3709.	Alex D
3710.	Susan Farlow
3711.	Coree Spencer
3712.	Moira Ashleigh
3713.	Michael R Kennedy
3714.	Angelo Madrigale
3715.	Angelina Kouvaris
3716.	Amy Cohen
3717.	Bes Dobra
3718.	Paul Mccarthy
3719.	Cheryl Voelker

3720.	Conney Joa
3721.	Al Krause
3722.	Kristen Murphy
3723.	Jason Brogan
3724.	Brady Fergusson
3725.	Jean Grayson
3726.	george Hipser
3727.	Deborah Herdan
3728.	Danny Williams
3729.	Cindi Dean
3730.	Jane Salgado
3731.	Regina Carragher
3732.	Amy Posner
3733.	T Walker Rice
3734.	Phyllis Grande
3735.	Alan Gaynor
3736.	John Hill Jr
3737.	Martha Upton
3738.	Rachael Walsh
3739.	Judith Nelson
3740.	Joseph Konig
3741.	William Pell
3742.	Joanne Scanlon
3743.	Thomas Parisi

3744. Dennis Knaack
3745. Donald Lamitie
3746. Ronald Marchesano
3747. Sharon Mcmenamin
3748. Frances Tinney
3749. Albert Bouchard
3750. Aubrae Lamparella
3751. Nancy Feenstra
3752. Craig Kinkade
3753. Katharine Skolnick
3754. Jose Caraballo
3755. Dawn Kenyon
3756. David Meyers
3757. R Bloom
3758. R. Bloom
3759. Bruce Beesley
3760. Colleen Plimpton
3761. Stacey M
3762. Martin Bugeja
3763. Kenneth Krynicki
3764. Christa Brown
3765. Catherine Jones
3766. Anthony Becker
3767. Alexander Goasdoue

3768.	Marie Gutkowski
3769.	Dawn Merrill
3770.	Robert Carra
3771.	Lucy Skye
3772.	Daniel Borchard
3773.	Ruth Talley
3774.	Laura McKinnon
3775.	Thomas Winner
3776.	Libby Garofalo
3777.	Bruce Gillette
3778.	Jean Hrbek
3779.	Jacqueline Orzell
3780.	Judith Long
3781.	Mario Maltese
3782.	Maureen Medina
3783.	Emily Humphrey
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3790.	M.Elizabeth Magone
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3794.	Judith Liu
3795.	Lixenia Vazquez
3796.	Jason Dana
3797.	Erin Marshall
3798.	Linda Gaglioti
3799.	Jamie Cruz Velazquez
3800.	Christine Duffy
3801.	Lisa Somerville
3802.	Alice Miller
3803.	Fred DeSousa
3804.	Thomas Everitt
3805.	Kevin Oldham
3806.	Denise Jogodnik
3807.	Heather Boucher
3808.	Regina Gavlick
3809.	Clementine Swan
3810.	Larissa Borglum
3811.	Angel Garcia
3812.	Neil Vokes
3813.	Jon Reiner
3814.	Erica Chambers
3815.	Stuart Williams

3816.	Ursula Reyes
3817.	Patricia Peck
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3819.	Grace Messina
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3821.	Hector Roldan
3822.	Elizabeth Axford
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3831.	Georgia Helliwell
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3835.	Alice Sutter
3836.	Kaylie Treskin
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3839.	Ray Hodell

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3841.	Elizabeth Murphy
3842.	Mary Henderson
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3844.	Guishen He
3845.	Anthony Font
3846.	Ramona Coppin
3847.	Katie O'Gallagher
3848.	Nancy Cotto-Fuentes
3849.	MichelleRenee Shafran
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3851.	Naya Mack
3852.	Anne McCabe
3853.	Kristine Schroeder
3854.	Alana Stiles
3855.	Kelsey Brown
3856.	Erica Hernandez
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3858.	Julio Hernandez Delgado
3859.	Matt Viani
3860.	Sally Lelong
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3862.	Stephanie Whittaker
3863.	Sheree Clement

3864.	Arianna Gutierrez
3865.	Theresa Davis
3866.	Edith Tucker
3867.	Alyssa Solazzo
3868.	Dean Everhart
3869.	Juliet Brown
3870.	Jeremy Young
3871.	Laura Leonard
3872.	Lucas McPeak
3873.	Morgan Dashko
3874.	Nicole Horton
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3876.	Luanne DeFelice
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3880.	Brent Blanchard
3881.	Lee Kirkpatrick
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3885.	Rashida Paul
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3888.	Melissa Coggeshall
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3890.	Lewis Thompson
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3892.	Susan Schilling
3893.	John Sardone
3894.	Mikaela Dancer
3895.	Tricia Hamilton
3896.	Holly Voges
3897.	Colleen Downing
3898.	Jason Albertson
3899.	Lisa Barnum
3900.	Bradford Grisley
3901.	Patricia Sellevold
3902.	Paul Wilson
3903.	Jordon Rothstein
3904.	Sarah Krar
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3906.	Maria Miranda
3907.	Catherine Valencia
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3926.	Alaska Fairbanks
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3930.	Mary Mulcahy
3931.	Michelle Rogers
3932.	Tom Odell
3933.	Maxine O'Reilly
3934.	Andrea Callan
3935.	Kristine Stallone

3936.	Frederica Miller
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3938.	Cameron Duncan
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3940.	Kimberly Ray
3941.	Lara Beneshan
3942.	Janet Apuzzo
3943.	Marlene Phelan
3944.	limari Centeno
3945.	Daniel Guenzburger
3946.	Pam Michaels
3947.	Cheryl Voelker
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3949.	Ronni Ascagni
3950.	Luisa Rodriguez
3951.	Meredith Kent-Berman
3952.	Tricia Hamilton
3953.	Karla Bowman
3954.	Maria Castrillon
3955.	Kerry O'Hagan
3956.	Maia Boswell-Penc
3957.	Fran Jacobsohn
3958.	Veronique Hart Saxton
3959.	Tinu Thakore

3960.	David Noreck
3961.	Catharine Sullivan
3962.	William Hansen
3963.	Viktoriya Sanchez
3964.	Shannon Gillis
3965.	Luis Paz
3966.	Kelly Chaffee
3967.	Kerrie Pons
3968.	Dr. Michelle Wenderlich
3969.	Pearl Hettich
3970.	Christy Carrington
3971.	Ike Rauth
3972.	Laura Kolb-Araujo
3973.	Nikhil Shimpi
3974.	Carolina Caballero
3975.	Joan Clarke
3976.	Jennifer Osborne
3977.	Marie Lange
3978.	Debra Lenssen
3979.	Flora Huang
3980.	Elizabeth Woolever
3981.	Debbie Goodman
3982.	Marya Friedman
3983.	TC Barr

3984.	Steven Tuttle
3985.	Richard Evans
3986.	Richard Sussman
3987.	Anne Keenan
3988.	Ruth Huber
3989.	Chrid George
3990.	Oscar Zamora
3991.	Marlene Phelan
3992.	Jack Harkins
3993.	Victoria Obrien
3994.	Sirina Nagi
3995.	Timothy Brace
3996.	Steven Reeves
3997.	Margaret Jones
3998.	Colleen Gibson
3999.	Karin Gluth
4000.	Brian Frazee
4001.	Nancy Hochman
4002.	Mary Alfinito
4003.	Chip James
4004.	Eve Mejias-Carey
4005.	Beth Hoeffner
4006.	Jayne Fiero
4007.	Lisa Vasta

4008.	Erich Slimak
4009.	Gail Fread
4010.	Patricia DeSocio
4011.	Laura Lee
4012.	Steven Andrychowski
4013.	Scott Thomas
4014.	Joseph Kollar
4015.	Mark Hill
4016.	Mark Sobel
4017.	Adam Cooper
4018.	Janet Engh
4019.	Alicia Tether
4020.	Gabriel Gomes
4021.	Breeze Azrael
4022.	Eric Lehman
4023.	Jaylen Morales
4024.	Thomas Reilly
4025.	Ruth Talley
4026.	Janet Allen
4027.	Conney Joa
4028.	Bruce Alia
4029.	Gregory Light
4030.	Andrea Callan
4031.	Kip Coerper

4032.	Anna New
4033.	Brian Edelstein
4034.	Paul Wilson
4035.	Kate Skolnick
4036.	Paul McCarthy
4037.	Cheryl Voelker
4038.	Kristen Murphy
4039.	Clyde Howard
4040.	Danny Williams
4041.	Peter Wood
4042.	Judy Weinstein
4043.	Rachael Walsh
4044.	Denise Gokey
4045.	T Walker Rice
4046.	Angelo Madrigale
4047.	Heather OHeaney
4048.	Naomi Schechter
4049.	Catherine Jones
4050.	Emily Metz
4051.	Dawn Kenyon
4052.	Jax Sprague
4053.	Nancy Shih-Knodel
4054.	Juan Rivera
4055.	Catherine Tsarouhtsis

4056.	Lauren Kirkwood
4057.	Martin Bugeja
4058.	Alex DeSantis
4059.	Ila Thompson
4060.	Marlene Phelan
4061.	R Bloom
4062.	Diana Waters
4063.	Laura Kreidler
4064.	Samantha Rubino
4065.	Eitan Albukrek
4066.	Donna Taylor
4067.	Jessica Blanchard
4068.	Jon Postyn
4069.	Robert Tokioka III
4070.	Paul Brown
4071.	Ann Lamb
4072.	Thomas Winner
4073.	Denise Charters
4074.	Thomas Culkin
4075.	Anne Masters
4076.	Carol Warren
4077.	Abi Buddington
4078.	Pat Almonrode
4079.	Cheryl Voelker

4080.	Alexander Hurlburt
4081.	Randi Wintamute
4082.	Michelle Marini
4083.	Jennie Spector
4084.	Paula Moloney
4085.	Jack Shapiro
4086.	Marie Gutkowski
4087.	Daygan Sobotka
4088.	Kate Skolnick
4089.	John Gabriel
4090.	Chris Carrick
4091.	Laura Kolb-Araujo
4092.	Stephen Okada
4093.	Lara Perez
4094.	Vanessa Algotsson
4095.	John York
4096.	Charles Gadol
4097.	Maria Cooper
4098.	Erin Hobaugh
4099.	Gary Goldberg
4100.	Clementine Swan
4101.	Elizabeth DeSole
4102.	Tom Hughes
4103.	Jeffrey Courter

4104.	Katharine Racicot
4105.	Ella Moran
4106.	Christian Tabone
4107.	Shari Ahlers
4108.	Frank Cortale
4109.	Adam Ayers
4110.	Megan Vaughn
4111.	C Stark
4112.	Theresa Davis
4113.	Ben Beckley
4114.	Kaitlin McKiernan
4115.	Claudia Cinardo
4116.	Erin Bedenbaugh
4117.	Eric Knaak
4118.	Christine LeBlanc
4119.	Mario Maltese
4120.	Richard Henning
4121.	Janet Mindes
4122.	Bruce Gillette
4123.	Nicole Horton
4124.	Kathleen Brown
4125.	Robert Stovall
4126.	Kelly Jean Clair
4127.	Kevin White

4128.	Doug McCool
4129.	Julien Caron-Mavrikis
4130.	Marc Beneduci
4131.	Emaera Conrad
4132.	Glenn E Sohm
4133.	Kimberly Ray
4134.	Therese Garner
4135.	Katie Kreutter
4136.	Emily Humphrey
4137.	Megan Gillespie
4138.	Oscar Northington
4139.	Kerry Gendron
4140.	Steven Reeves
4141.	David Noreck
4142.	Edward Sisk
4143.	Andrea Bodnar
4144.	Deborah T
4145.	Tessali Wahls
4146.	Luanne DeFelice
4147.	Jason Brosius
4148.	Frances Tinney
4149.	Taylor Huntsman
4150.	Cindy Bobe
4151.	Terry Nestler

4152. Trixie Brunson
4153. Ariele Norris
4154. Kimberly Wade Barcia
4155. Ashley Zapach
4156. Angel Garcia
4157. Lou S
4158. Tara Binder
4159. Melissa Gordon
4160. Denise Charno
4161. Darlene LeFrancois
4162. Fran Jacobsohn
4163. Jodiah Jacobs
4164. Amre Klimchak
4165. Andrea Browne
4166. Steve Gurzler
4167. Kristine Stallone
4168. Andrea Kennell
4169. Silvia Camplone
4170. James Mongan
4171. Ann Adams
4172. Jacqueline McCarthy
4173. Dudley Pease
4174. Martha Matias
4175. Ellen Tanner

4176. Andrea Soccorso
4177. Laura Kreidler
4178. Jennifer Lomas
4179. Karen Velardi
4180. Gilbert Marrero
4181. Julia Tedeschi
4182. Stephanie Whittaker
4183. Andrew Gillivan
4184. John Rhodes
4185. Melissa Coggeshall
4186. Man Ling Tam
4187. Ken Wright
4188. Christopher Stackhouse
4189. Christina Leano
4190. Jessica Russo
4191. James Parsons
4192. Juliet Brown
4193. Linda Pantano
4194. Maureen Medina
4195. Brady Fergusson
4196. Jon Reiner
4197. Eddie Collins
4198. Brian Roberti
4199. Gregory Light

4200.	Tom Dodson
4201.	Susan Van Metre
4202.	Penny Stoevers
4203.	Winston Binch
4204.	Michelle Nicholl
4205.	Lisa Weisberg
4206.	Phillip Gioia
4207.	Rob Ruscher
4208.	Jack Rush
4209.	Alex DeSantis
4210.	Mary Callahan
4211.	Naya Castinado
4212.	Laura McKinnon
4213.	Eric Z
4214.	Karen Backstein
4215.	Valerie McAllister
4216.	Albert Froment
4217.	Curtis Bolyard
4218.	Andrea McIntosh
4219.	Bradford Grisley
4220.	Francisco Mercado
4221.	Joan Marksamer
4222.	Elizabeth Mercer
4223.	Tiffany Kinsler Liess

4224.	Joel Kleiner
4225.	Brian Bennewitz
4226.	Kendra Foster
4227.	Jennifer Hughes
4228.	Gail Fread
4229.	Colleen Downing
4230.	Oluremi Oshin
4231.	Cinde Hoffman
4232.	Edgar Woh
4233.	Heather Novak
4234.	Katherine Katsanis-Semel
4235.	Edwin Huero
4236.	Robert Bird
4237.	Jeremy Young
4238.	Pamela Dodge
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4240.	Erich Slimak
4241.	Daniela Cristan
4242.	Paul Wilson
4243.	Kelley Coleman-Slack
4244.	Jennifer Weiss
4245.	Craig Kinkade
4246.	Adele Mauriello
4247.	Meredith Kent-Berman

4248.	Savita Ramdev
4249.	Marnee Reilly
4250.	Sandra Chelnov
4251.	Ike Rauth
4252.	Dana Caruso
4253.	Barbara Horn
4254.	Nancy Tongue
4255.	Kevin Fraleigh
4256.	Cheryl Botts
4257.	Donald Yanulavich
4258.	Emily Raphael
4259.	Cecilia Williams
4260.	Alex Erickson
4261.	Coleman Bell
4262.	Dorca Reynoso
4263.	Alex Kennedy
4264.	Zena Bracero
4265.	Louise Mahatcek
4266.	Christine Duffy
4267.	Veronique Hart Saxton
4268.	Michelle Rogers
4269.	Donna Watts
4270.	Olha Borynets
4271.	Carmen Reyes

4272.	Richard Wilkinson
4273.	Bob Vittengl
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4279.	Ben Gatus
4280.	Margaret Jones
4281.	Andrea McKitty
4282.	Matt Viani
4283.	Gale Pisha
4284.	Mikaela Dancer
4285.	Robert Seemueller
4286.	Karen Carlisle
4287.	R Bloom
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4289.	Gretchen Witt
4290.	Linda Wilkinson
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4292.	Denia Soto
4293.	Tricia Hamilton
4294.	Steven Tuttle
4295.	Cindy Katri

4296.	Marilyn Neiman
4297.	Anne Schwartz
4298.	Arlene Zuckerman
4299.	Julie Charles
4300.	Mairi Meredith
4301.	Michael Finckel
4302.	Marlene Phelan
4303.	Denise Gokey
4304.	Leela Shegonee
4305.	Lewis Thompson
4306.	Elise Fiala
4307.	Mark Petzold
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4309.	Mamie Anguiano
4310.	Tobias Dean
4311.	Marta Sperry
4312.	Carolyn Durcan
4313.	Luciano Sabatini
4314.	Mary Anne Holowaty
4315.	Sal Bucaro
4316.	Paula DeMers
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4318.	Geri Sullivan
4319.	Jenny Yu

4320.	Michael Leinoff
4321.	Charles Gates
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4330.	Lisa Vasta
4331.	Linda Auriemma
4332.	Bnnie Host
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4337.	Madeleine Sinor
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4340.	Ruth Talley
4341.	Bill Lewis
4342.	Dorniece Stephen
4343.	Mikaela Dancer

4344.	Joseph Kollar
4345.	Jason Zoss
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4347.	Kip Coerper
4348.	Al Krause
4349.	Conney Joa
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4351.	Eric Lehman
4352.	Adam Cooper
4353.	Dorniece Stephen
4354.	Richard Sturgeon
4355.	Joseph Jewell
4356.	Peter Wirth
4357.	Robert Schloss
4358.	Phyllis Grande
4359.	Andrew Joncus
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4363.	Mindy Abraham
4364.	Janice Rost
4365.	Christy Pennoyer
4366.	Tim Harrod
4367.	Kenneth Krynicki

4368. Jen Honickman
4369. Phyllis Grande
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4374. Juan Rivera
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4377. Sharon Mc Menamin
4378. Emma Rosensar
4379. Callan Ditmyer
4380. Kathleen Mallery
4381. Kristen Murphy
4382. Katherine O'Sullivan
4383. Jesse Ginsburg
4384. Sanjay Kumar
4385. Elizabeth Gundlach
4386. Dawn Kenyon
4387. Anthony Becker
4388. Anne Demare
4389. Paul Tick
4390. Bonnie Cavaleri
4391. Irene Murray

4392. Lois Bailey
4393. Kate Skolnick
4394. Joanne Scanlon
4395. Justin White
4396. Oscar Zamora
4397. Stephanie Hildreth
4398. Emily Metz
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4400. Jon Will
4401. Laurel Lindewall
4402. Sirina Nagi
4403. Marlene Phelan
4404. Caephren Mckenna
4405. Elaine Minier
4406. Karen Probert-Owcar
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4408. Steven Andrychowski
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4411. Val Farrelly
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4413. Denise Herbert
4414. Sue Marcott
4415. Lee Ryan

4416. Lori Colon

4417. Lori Colon

4418. Diana Waters

4419. Oscar Zamora

4420. Kendall Granberry

4421. Angel Dedric Kim

4422. Paula Orbaugh

4423. Philip Mertz

4424. Roberta Corona

4425. Nellie Adaba

4426. Patrick Kelly, AFPM

4427. Patrick Kelly, AFPM

4428. Paulina Muratore, Union of Concerned Scientists

4429. Jessica Enzmann, Sierra Club

4430. Jaqui Cohen, Tri-State Transportation Campaign

4431. Yeh-Tang Huang, National Resources Defense Council

4432. Kevin Garcia, New York City Environmental Justice Alliance

4433. Conor Bambrick, Environmental Advocates NY

4434. Thad Kurowski, Tesla

4435. Will Barrett, American Lung Association

4436. Alok Disa, Earthjustice