

**SENATE . . . . . No. 2498**

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Senate, January 30, 2020– Text of the Senate to accelerate the transition of cars, trucks and buses to carbon-free power (being the text of Senate, No. 2476, printed as amended)

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**The Commonwealth of Massachusetts**

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**In the One Hundred and Ninety-First General Court  
(2019-2020)**  
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An Act to accelerate the transition of cars, trucks and buses to carbon-free power.

*Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:*

1           SECTION 1. Section 16 of chapter 25A of the General Laws, as appearing in the 2018  
2 Official Edition, is hereby amended by inserting after the word “section”, in line 1, the following  
3 words:- and section 18.

4           SECTION 2. Subsection (a) of said section 16 of said chapter 25A, as so appearing, is  
5 hereby amended by adding the following definition:-

6           “Zero-emission vehicle”, a motor vehicle that produces no engine exhaust carbon  
7 emissions.

8           SECTION 3. Said chapter 25A is hereby further amended by adding the following  
9 section:-

10           Section 18. (a) The commissioner shall, subject to appropriation, establish a program to  
11 provide rebates or other financial incentives to consumers who purchase or lease and register and  
12 insure in the commonwealth a zero-emission vehicle. Vehicles qualifying for rebates under this

13 section shall: (i) be manufactured primarily for use on public streets, roads and highways; (ii)  
14 have an engine that is not modified from the original manufacturer's specifications; and (iii) have  
15 been acquired for use or lease by the consumer and not for resale.

16 (b) A rebate under this section shall not be less than \$1,500 per vehicle; provided,  
17 however, that no rebate shall be available for a vehicle with a sales price that exceeds \$50,000.

18 (c) The commissioner may promulgate regulations to administer the program established  
19 under this section. At least once per calendar year, the commissioner shall provide outreach to  
20 underserved consumers and consumers in communities with a high percentage of low-income  
21 households with information about the zero-emission vehicle incentive program established  
22 under this section.

23 (d) The commissioner shall publish and regularly update data regarding program usage  
24 including, but not limited to: (i) the number and amount of rebates or incentives provided each  
25 month; (ii) the make, model and type of vehicle for which the rebate or incentive was issued; (iii)  
26 the zip code in which the vehicle is registered; and (iv) the estimated total greenhouse gas  
27 emissions reductions achieved from the rebate or incentive issued.

28 SECTION 4. Section 7A of chapter 90 of the General Laws, as appearing in the 2018  
29 Official Edition, is hereby amended by inserting after the fifth paragraph the following  
30 paragraph:-

31 Not later than January 1, 2022, and annually thereafter, the registry shall issue to a  
32 municipality, upon request, the following aggregate data for the previous 12 months: (i) the  
33 number of vehicles registered in said municipality, including the total numbers of gas-powered  
34 vehicles, hybrid vehicles and zero-emission vehicles; and (ii) the average number of miles driven

35 by such gas-powered, hybrid and zero-emission vehicles, respectively. The data shall be  
36 protective of privacy information.

37 SECTION 5. Section 94 of chapter 143 of the General Laws, as so appearing, is hereby  
38 amended by adding the following 2 subsections:-

39 (s) In consultation with the department of energy resources, to adopt and fully integrate  
40 into the state building code requirements that new construction of commercial and residential  
41 buildings with not less than 10 parking spaces, as well as major reconstruction, renovation and  
42 repair of such buildings, include building electrical service and conduit systems sufficient to  
43 support the minimum number of zero-emission vehicle parking spaces; provided, however, that  
44 the minimum number of zero-emission vehicle parking spaces shall be at least 1 parking space  
45 or not less than 5 per cent of the total number of parking spaces, whichever is greater. For the  
46 purposes of this section, “zero-emission vehicle” shall mean a motor vehicle that produces no  
47 engine exhaust emissions.

48 (t) In consultation with the department of energy resources, to adopt and fully integrate  
49 into the state building code requirements that new construction of parking facilities with not less  
50 than 10 parking spaces, as well as major reconstruction, renovation and repair of such facilities,  
51 include building electrical service and conduit systems sufficient to support the minimum  
52 number of zero-emission vehicle parking spaces; provided, however, that the minimum number  
53 of zero-emission vehicle parking spaces shall be at least 1 parking space or not less than 5 per  
54 cent of the total number of parking spaces, whichever is greater.

55 SECTION 6. Section 3 of chapter 448 of the acts of 2016 is hereby amended by striking  
56 out, in lines 3 and 4, the words “may include requirements for electric vehicle charging for

57 residential and appropriate commercial” and inserting in place thereof the following words:-  
58 shall include requirements for electric vehicle charging for appropriate residential and  
59 commercial.

60 SECTION 7. Said chapter 448 is hereby further amended by inserting after section 6 the  
61 following 2 sections:-

62 Section 6A. (a) The department of energy resources, in consultation with the  
63 Massachusetts Department of Transportation and the executive office for administration and  
64 finance, shall create and maintain an inventory of motor vehicles owned or leased by the  
65 commonwealth. The inventory shall include a critical replacement list consisting of non-zero  
66 emission vehicles that, if the non-zero emission vehicle needed to be replaced, replacement with  
67 a zero-emission vehicle is operationally feasible and results in a positive lifecycle cost benefit.  
68 The critical replacement list shall include, but not be limited to, vehicles that are approaching the  
69 end of their useful lives or are otherwise reasonable candidates for replacement and whose  
70 replacement presents a high or medium priority opportunity for near-term electrification as  
71 indicated in the study completed pursuant to section 6 and published on December 22, 2017 or  
72 any successive analysis or study required by law or commissioned by the department of energy  
73 resources or Massachusetts Department of Transportation. Not less than every 3 years, the  
74 department of energy resources, in consultation with the Massachusetts Department of  
75 Transportation, shall revise and update the analysis of opportunities for near-term electrification  
76 of vehicles owned, purchased or leased by the commonwealth. For the purposes of this section,  
77 “commonwealth” shall include, but not be limited to, the Massachusetts Bay Transportation  
78 Authority, Massachusetts Port Authority and Massachusetts Water Resources Authority, but  
79 shall not include municipalities, regional school districts and regional transit authorities

80 authorized pursuant to chapter 161B of the General Laws. Nothing in this section shall prevent or  
81 limit the commonwealth from purchasing a zero-emission vehicle for a vehicle or purpose not  
82 identified on the critical replacement list.

83 (b) Not later than January 1, 2024, each purchase or lease by the commonwealth of a  
84 motor vehicle identified on the critical replacement list under subsection (a) by the  
85 commonwealth, including, but not limited to, the Massachusetts Port Authority and  
86 Massachusetts Water Resources Authority, but not including the Massachusetts Bay  
87 Transportation Authority, municipalities, regional school districts and regional transit authorities  
88 authorized pursuant to chapter 161B of the General Laws, shall be a zero-emission vehicle. The  
89 commonwealth shall prioritize the deployment of zero-emission vehicles in underserved  
90 communities and communities with a high percentage of low-income households.

91 (c) Beginning January 1, 2030, each purchase or lease of a passenger bus by the  
92 Massachusetts Bay Transportation Authority shall be a zero-emission vehicle; provided,  
93 however, that the Massachusetts Bay Transportation Authority shall seek to replace non-zero  
94 emission passenger buses with zero-emission passenger buses before January 1, 2030.

95 (d) The Massachusetts Bay Transportation Authority shall operate exclusively zero-  
96 emission passenger buses not later than December 31, 2040; provided, however, that a non-zero  
97 emission passenger bus purchased before January 1, 2030 may be operated after December 31,  
98 2040 if its operation is strictly necessary to maintain service levels and prompt plans are in place  
99 to replace the bus with a zero-emission passenger bus.

100 (e) The secretary of transportation and the Massachusetts Bay Transportation Authority,  
101 in consultation with the executive office of energy and environmental affairs, shall develop and

102 complete a plan to operate exclusively zero-emission passenger buses not later than December  
103 31, 2040. With respect to early implementation, the plan shall mandate that a majority of buses  
104 purchased or leased serve routes serving low-income households and households in underserved  
105 communities. Not later than December 31, 2021, the plan shall be filed with the clerks of the  
106 senate and house of representatives and the joint committee on transportation and be made  
107 publicly available on the Massachusetts Department of Transportation’s website.

108         Every 5 years until the Massachusetts Bay Transportation Authority operates exclusively  
109 zero-emission passenger buses, the secretary shall submit to the clerks of the senate and house of  
110 representatives and the joint committee on transportation and post on the Massachusetts  
111 Department of Transportation’s website updated progress reports on the implementation of this  
112 subsection, including, but not limited to, the number of zero-emission passenger buses operated,  
113 the number of non-zero emission passenger buses operated, the number of zero-emission  
114 passenger buses operated on routes serving low-income households and households in  
115 underserved communities, the number of non-zero emission passenger buses operated on routes  
116 serving low-income households and households in underserved communities, barriers to  
117 increased numbers of zero-emission passenger buses, if any, and recommended legislative or  
118 regulatory action needed to address barriers or otherwise promote compliance with this section  
119 and the cost of simultaneously operating zero-emission passenger buses, including, but not  
120 limited to, staffing, training, maintenance and other mechanical equipment, facilities, financing  
121 and premiums attributable to the purchase of zero-emission passenger buses. For the purposes of  
122 this section, “zero-emission vehicle” shall mean a motor vehicle that produces no engine exhaust  
123 emissions. For the purposes of this subsection, “low-income” shall have the same meaning as  
124 defined under section 1 of chapter 40T of the General Laws.

125 (f) Not later than January 1, 2021, the Massachusetts Department of Transportation, in  
126 consultation with the department of energy resources, shall develop recommendations for the  
127 siting of zero-emission vehicle charging facilities to serve state-owned or leased zero-emission  
128 vehicles and zero-emission passenger buses across the commonwealth. The recommendations  
129 shall consider locations across the commonwealth, including within municipal light plant  
130 territories, and shall consider the benefit and potential cost savings to ratepayers for potential  
131 locations.

132 Section 6B. The department of energy resources, in consultation with the Massachusetts  
133 Department of Transportation, shall conduct, publish and periodically update a study of the  
134 opportunities for near-term electrification of vehicles owned or leased by municipalities, regional  
135 school districts and regional transit authorities authorized pursuant to chapter 161B of the  
136 General Laws. The study shall include, but not be limited to: (i) an analysis of the cost of vehicle  
137 electrification, associated equipment and supplies and possible methods of meeting such costs,  
138 including, but not limited to, state financial support, federal financial support and procurements  
139 by regional planning agencies and other entities made up of local and regional governments; (ii)  
140 recommendations for the allowance within the fleets of non-electric emergency vehicles; and (iii)  
141 opportunities to pair electrification with renewable energy resources, energy storage or demand  
142 response technology and policy. The department of energy resources shall publish the study on  
143 its website not later than 18 months after the effective date of this section and shall thereafter  
144 publish revisions of the study on its website not less than every 3 years. The study and  
145 subsequent revisions shall be submitted to the clerks of the senate and house of representatives,  
146 the joint committee on transportation and the joint committee on telecommunications, utilities  
147 and energy and posted on the department of energy resource's website.

148           SECTION 8. Notwithstanding any general or special law to the contrary, not later than 1  
149 year after the effective date of this act, the department of energy resources shall publish a guide  
150 to assist cities and towns in developing processes and policies to expand electric vehicle parking  
151 in municipally-owned parking spaces and lots including, but not limited to, an analysis or guide  
152 to pricing incentives for parking for zero-emission vehicles and reserved parking for zero-  
153 emission vehicles. The guide shall include a review of similar programs established in other  
154 states. For the purposes of this section, “zero-emission vehicle” shall mean a motor vehicle that  
155 produces no engine exhaust emissions.

156           SECTION 9. The Massachusetts Bay Transportation Authority, in consultation with the  
157 executive office of energy and environmental affairs, shall develop a plan to reduce the carbon  
158 emissions of its commuter rail and light rail operations, including a numerical value of the plan’s  
159 contribution to meeting statewide greenhouse gas emissions limits and sublimits set by statute or  
160 regulation. The plan shall include: (i) an analysis of the cost and benefits of meeting the  
161 statewide greenhouse gas emissions limits and sublimits; (ii) energy conservation methodologies,  
162 including, but not limited to, regenerative braking, flywheel, battery or capacitor storage and the  
163 use of alternative methods for generating electricity; (iii) evaluation of increased electricity  
164 demands resulting from steps taken by the authority to reduce greenhouse gas emissions; (iv)  
165 feasibility studies, where necessary; and (v) a recommended schedule for implementation.

166           The authority shall post its plan on the authority’s website not later than 6 months from  
167 the effective date of this act.



168 SECTION 10. The Massachusetts Department of Transportation shall install and  
169 maintain electric vehicle charging stations at all service plazas located on the Massachusetts  
170 Turnpike for public use not later than December 31, 2022.

171 SECTION 11. The motor vehicle inventory required by section 6A of chapter 448 of the  
172 acts of 2016 shall be established not later than June 1, 2021.

173 SECTION 12. Amendments to the state building and electric code required under section  
174 5 shall be in effect not later than January 1, 2021.