

**SENATE . . . . . No. 207**

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**The Commonwealth of Massachusetts**

PRESENTED BY:

***Donald F. Humason, Jr., (BY REQUEST)***

*To the Honorable Senate and House of Representatives of the Commonwealth of Massachusetts in General Court assembled:*

The undersigned legislators and/or citizens respectfully petition for the adoption of the accompanying bill:

An Act ensuring safer technology investment by the Massachusetts Broadband Institute.

PETITION OF:

NAME:	DISTRICT/ADDRESS:	
<i>Kirstin Beatty</i>		
<i>Carlos González</i>	<i>10th Hampden</i>	<i>1/31/2019</i>

**SENATE . . . . . No. 207**

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By Mr. Humason (by request), a petition (accompanied by bill, Senate, No. 207) of Kirstin Beatty and Carlos Gonzalez for legislation to ensure safer technology investment by the Massachusetts Broadband Institute. Economic Development and Emerging Technologies.

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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 ensuring safer technology investment by the Massachusetts Broadband Institute.

*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. Chapter 40J of the General Laws is hereby amended by striking the  
2 language of Section 6B and inserting thereof the following:-

3           SECTION 6B. Massachusetts Broadband Institute; board of directors; broadband  
4 infrastructure; plan of operation; disbursement of funds; annual report

5           Section 6B. (a) As used in this section and in section 6C, the following words shall,  
6 unless the context clearly requires otherwise, have the following meanings:

7           "Board" means the board of the Massachusetts Broadband Institute established by  
8 subsection (c).

9           "Broadband" means high-speed internet access.

10           “Communications” means providing for communication across the state, whether through  
11 traditional land-line phone service or use of broadband services, and including such services as  
12 telephone booths for public telephone calls and options for 911 service.

13           "Fund" means the Massachusetts Broadband Incentive Fund established by section 6C.

14           “Contact information for service” means information necessary for a plaintiff to file  
15 service against the owner of a wireless facility, including name and address of the owner or  
16 owners. For business entities, names and addresses of the business entity must be provided along  
17 with an agent for service. For partnerships, names and addresses of partners must be included.  
18 For business entities, executive officers must also provide names and addresses for service to  
19 allow for “piercing the corporate veil.”

20           "Institute" or “MBI” means the Massachusetts Broadband Institute established by  
21 subsection (b).

22           “Land-line” shall mean a telephone that is hard-wired; which uses a metal wire to  
23 transmit communications; and which can function during a power outage for extended periods  
24 due to an external source of power transmitted through the metal wire.

25           “Secure” shall mean broadband service that is designed to limit hacking or intrusion  
26 through technical design and cybersecurity; quality, working landline service; and decentralized,  
27 hardened utility services ideally disconnected from broadband and ideally protected from an  
28 EMP. Except where records are public, secure shall mean safe from surveillance.

29           (b) The corporation shall establish an institute for investment in broadband and  
30 communications infrastructure in the commonwealth, to be known as the Massachusetts

31 Broadband Institute, in recognition of communications as essential not only for business but as  
32 essential for democracy and government functions. The executive director of the corporation,  
33 subject to the approval of the board, shall appoint a qualified individual as director to manage the  
34 affairs of the institute. The mission of the institute shall be to improve the safety and security of  
35 communications while supporting reasonable access to communications.

36 Intent to manipulate the spirit of or failure to comply with its mission, rules, and  
37 objectives as stated in this section shall be grounds for a cause of action against the MBI, as well  
38 as or against persons complicit. This action may be brought forward by the attorney general; a  
39 municipality or municipalities; or citizens of the Commonwealth. A vote of no confidence in the  
40 MBI or corporation by the House of Representatives or Senate shall force the attorney general to  
41 investigate.

42 (1) In meeting its mission and objectives, the MBI shall comply with several rules: (i)  
43 MBI shall not arrange any contract to allow the commonwealth to assume any liability for  
44 wireless facilities and transmissions; (ii) the MBI shall encourage municipal ownership of secure  
45 communications infrastructure with additional up-front funding; (iii) As much as possible, MBI  
46 shall encourage broadband open access; (iv) MBI shall attend to risks and avoid investing in  
47 equipment or software vulnerable to hacking or outside control, such as from corporations or  
48 foreign governments with concerning histories; (v) the MBI shall favor investment in structures  
49 directly accountable to the public; (vi) MBI shall discourage monopoly control by private  
50 providers; (vii) MBI shall reduce reliance upon broadband systems whenever reasonable based  
51 on cost and security considerations; (viii) MBI information and proceedings shall be accessible  
52 and transparent to the public; (ix) private-public partnerships shall be designed to confer  
53 significant benefits including, but not limited to, compliance with MBI mission and objectives,

54 ownership interest, licensing fees, and training or consulting fees; and (x) MBI shall fairly  
55 distribute investments across the state to improve safety, security, and accessibility of  
56 communications.

57 (2) To improve technological safety, MBI shall reduce non-ionizing electromagnetic  
58 exposures and fulfill these objectives: (i) where possible, decommissioning wireless  
59 communications facilities and antennas with due respect for maintaining basic access to essential  
60 or emergency communications; (ii) where possible, turning off wireless functionality, reducing  
61 other electromagnetic exposures, and hard-wiring broadband access in government facilities,  
62 public schools, public libraries, and other public spaces; (iii) choosing to invest in  
63 communication systems which emit less and have reduced fields, harmonics, and transients,  
64 including traditional land-lines; and (iv) investing in hard-wired, secure broad-band systems or  
65 hard-wiring existing secure broadband systems.

66 (3) Objectives for secure and reasonable access to communications shall include: (i)  
67 providing for affordable access to secure land-line service across the commonwealth for essential  
68 commonwealth services as well as for residents; (ii) connecting land-line services to secure,  
69 decentralized sources of electricity, ideally using direct current or other measures to protect from  
70 a destabilizing electromagnetic pulse (EMP) from the sun or weapon; and (iii) assisting utilities  
71 in securing utility services through secure mechanical and analog measures rather than through  
72 wireless or broadband, with additional consideration for equipment and design safe from an  
73 EMP.

74 (4) Additional objectives shall include (i) identifying and sharing information regarding  
75 secure equipment and software, including open source, to provide for secure broadband access

76 for essential state and local services, including education; (ii) assisting with transition to secure  
77 software, including open source, and equipment for essential state and local services; (iii)  
78 providing relevant training to public entities, MBI employees, and other persons to advance the  
79 MBI mission and objectives; and (iv) assisting with development of secure broadband access  
80 distributed equitably across the state in public spaces such as libraries, universities, community  
81 colleges, and broadband access centers.

82 (c) The institute shall be governed and its corporate powers exercised by a board of  
83 directors, which shall consist of the following 11 members: the secretary of administration and  
84 finance or his designee; the secretary of public health, who shall serve as chair; the secretary of  
85 housing and economic development; the commissioner of telecommunications and cable or  
86 designee; the executive director of the corporation or designee; the attorney general or designee;  
87 a representative of the commonwealth's Radiation Control Agency with expertise in non-  
88 ionizing radiation; 3 members to be appointed by the attorney general with expertise in relevant  
89 municipal and consumer rights; 3 members to be appointed by the governor, who shall each have  
90 knowledge and experience in 1 of the following areas consistent with the mission and objectives  
91 of the MBI: cybersecurity; telecommunications infrastructure; and grid or utility security. Each  
92 member appointed by the governor or attorney general shall serve a term of 4 years and  
93 thereafter until his successor is appointed. Any person appointed to fill a vacancy on the board  
94 shall be appointed in a like manner and shall serve for only the unexpired term of such member.  
95 Any appointed member shall be eligible for reappointment. An appointed member may be  
96 removed by the governor or attorney general for cause.

97 Six members of the board shall constitute a quorum, and the affirmative vote of a  
98 majority of the members present and eligible to vote at a meeting shall be necessary for any

99 action to be taken by the board. The members shall serve without compensation, but each  
100 member shall be entitled to reimbursement for actual and necessary expenses incurred in the  
101 performance of his official duties. The board shall meet at least 4 times annually.

102 (d) The corporation shall leverage private sector, state, and federal investment by  
103 financing the construction and acquisition of broadband infrastructure to promote the  
104 development of broadband and communications safety, security, and access according to its  
105 mission and objectives. Broadband infrastructure shall favor fiberoptic cable or cable with  
106 comparable safety and shielding of nonionizing radiation, with additional attention given to  
107 connectors that in the long term best shield electromagnetic fields.

108 Subject in all cases to the MBI mission, objectives, and public interest, the corporation  
109 may: (i) finance or acquire equipment or other property to be owned by the commonwealth or 1  
110 or more other public entities, where the equipment or other property may be leased or licensed  
111 by the corporation for a fee which shall be credited to the fund; (ii) make grants to 1 or more  
112 public entities for the financing or acquisition of equipment or other property; and (iii) make  
113 grants or loans to nonprofit entities or private corporations for the financing or acquisition of  
114 equipment or other property in compliance with the MBI mission and objectives, provided  
115 however that contractual arrangements provide relevant licensing fees; ownership interest;  
116 regulatory oversight; and fair rates on loans.

117 The acquisition of an indefeasible right of use of facilities used for the transmission of  
118 intelligence by electricity or of a license or other agreement to use electromagnetic spectrum  
119 licensed by the federal government shall be the acquisition of an ownership interest in broadband  
120 infrastructure and any such transaction shall constitute a transaction with the commonwealth for

121 the purposes of chapter 30B. Any lessee or licensee shall pay lease or license fees to the  
122 corporation, which shall credit the fees to the fund. The corporation may provide and pay for  
123 advisory services, employees, and technical assistance and take other actions as may be  
124 necessary or desired to carry out its purposes.

125 The board may work in collaboration with the corporation and other quasi-public and  
126 nonprofit entities and state agencies, and may provide advisory assistance to local entities, local  
127 authorities, public bodies and private corporations for the purposes of maximizing its mission  
128 and objectives.

129 Notwithstanding any general or special law or rule or regulation to the contrary, the  
130 department of highways may lease or license for a term not to exceed 25 years any interest in  
131 real property deemed appropriate by the corporation and the commissioner of highways to  
132 promote the objectives of this chapter. The nature and extent of such interest shall be transferred  
133 on such terms and conditions as the commissioner of highways may determine. The terms and  
134 conditions of any conveyance executed pursuant to this subsection shall be approved by the  
135 commissioner of capital asset management, in consultation with the inspector general and the  
136 secretary of transportation.

137 Any interest acquired by the corporation may be leased or licensed by the corporation for  
138 use by public entities or nonprofit or for-profit private sector entities subject to the approval of  
139 the commissioner of highways and subject to this section including, without limitation, such  
140 right of reverter at the expiration of the term. Given the parameters provided by the MBI mission  
141 and goals, the corporation shall lease or license any such interest with competitive processes and  
142 procedures within MBI constraints as may be reviewed and approved by the inspector general.



143 Notice that such interest if available for lease or license shall be publicly advertised in 2  
144 daily newspapers of general circulation published in the city of Boston and, if such real property  
145 is located in any other city or town, in a newspaper of general circulation published in such other  
146 city or town, once a week for 2 successive weeks. Such advertisements shall state the availability  
147 of such interest, the nature of the competitive process and other information deemed relevant,  
148 including the time and place where all pertinent information relative to the interest to be leased  
149 or licensed may be obtained, the criteria for selection of a successful proponent, and the time,  
150 place and manner for the submission of bids, proposals and the opening thereof. The  
151 consideration for any such interest shall be within the estimated range of the fair market value of  
152 the interest as determined by the corporation based upon an independent professional appraisal.  
153 However, when necessary to forestall or balance monopoly, MBI shall provide or allow for  
154 exceptions to competitive bidding. Any such interest conveyed by the department of highways  
155 shall revert to the commonwealth at the expiration of any such term.

156 The corporation may exercise any of its powers to assist or enable the institute to fulfill  
157 its purposes as set forth in this section, including the powers set forth in clause (e) of section 4.  
158 Without limiting the generality of the foregoing, the corporation shall have the power to develop,  
159 lease or otherwise acquire, own, hold, dispose of and encumber conduit, fiber, towers and other  
160 real and personal property related to broadband infrastructure that shall be necessary or  
161 convenient to the fulfillment of its mission and objectives. The exercise by the corporation of any  
162 such powers shall be deemed and held to be an essential governmental function.

163 (e) The board shall collect information from reasonably available sources including, but  
164 not limited to: municipalities and other public entities and agencies of the commonwealth, local  
165 and regional nonprofit entities and telecommunications and broadband service providers to

166 develop and maintain an inventory of: (i) locations where telecommunications and broadband  
167 services are not available in the commonwealth; (ii) locations where telecommunications and  
168 broadband infrastructure is available or is likely to be available to support the provision of  
169 services to unserved and underserved areas; (iii) locations where new infrastructure may be  
170 necessary to support the provision of secure and safe services to unserved and underserved areas;  
171 (iv) the quality of such services, including, but not limited to, speed of data transmission, length  
172 of service during power outage, and cost of such services including landline service; (v)  
173 providing a map to the public of wireless facilities including contact information for service and  
174 emergencies; (vi) providing a map for the public of electric and magnetic peak power  
175 measurements across the commonwealth for wireless communications; and (vii) and may choose  
176 to assess peak power measurements across the commonwealth.

177 (f) The board shall establish a detailed long-term plan for the operation of the institute  
178 and the administration of the fund and shall consult with the joint committee on  
179 telecommunications, utilities and energy; the joint committee on children, families, and persons  
180 with disabilities; and the joint committee on economic development and emerging technologies  
181 on the plan. The plan, and any amendments thereto, shall be subject to the approval of the  
182 secretary of health and human services and the secretary of administration and finance and shall  
183 be filed with the clerks of the house of representatives and the senate who shall forward the same  
184 to the house and senate committees on ways and means, the joint committee on  
185 telecommunications, utilities and energy and the joint committee on economic development and  
186 emerging technologies.

187 (g) The board shall annually adopt an operating plan governing disbursements from the  
188 fund and, to the extent the plan provides for disbursement of appropriations or other moneys

189 authorized by the general court, the plan shall be subject to the approval of the secretary of  
190 housing and economic development and the secretary of administration and finance. The board  
191 shall file the plan, and any amendments thereto, with the clerks of the house of representatives  
192 and the senate who shall forward the same to the house and senate committees on ways and  
193 means, on children, families, and persons with disabilities, the joint committee on  
194 telecommunications, utilities and energy and the joint committee on economic development and  
195 emerging technologies.

196 (h) The board shall promulgate rules and regulations for the administration and  
197 enforcement of this section and section 6C.

198 (i) The board shall review and recommend changes in laws, rules, programs and policies  
199 of the commonwealth and its agencies and subdivisions to further financing, infrastructure and  
200 development for broadband access in the commonwealth.

201 (j) The board shall prepare, publish and distribute, with or without charge, as the institute  
202 may determine, any studies, reports and bulletins and other material as the institute deems  
203 appropriate.

204 (k) The institute shall file an annual report of its activities with the governor and the  
205 clerks of the house of representatives and the senate who shall forward the same to the joint  
206 committee on telecommunications, utilities and energy, the joint committee on economic  
207 development and emerging technologies, on children, families, and persons with disabilities, and  
208 the house and senate committees on ways and means.

209 (l) Actions of the board may take effect immediately and notice thereof shall be published  
210 and posted. Meetings of the board shall be subject to section 11A1/2 of chapter 30A. Records

211 pertaining to the activities of the institute shall be subject to section 10 of chapter 66, unless  
212 exempted under subsection (h) of section 12. The operations of the institute shall be subject to  
213 chapters 268A and 268B; provided, however, that the members of the board shall be considered  
214 directors for the purposes of the fourth, fifth and seventh paragraphs of section 3.

215 (m) Sections 38A1/2 to 38O, inclusive, of chapter 7, section 39M of chapter 30, subject  
216 to the provisions of subsection (c) of section 4A and sections 44A to 44J, inclusive, of chapter  
217 149 shall apply to the operations of the institute.

218 SECTION 2. Chapter 40J of the General Laws is hereby amended by striking the  
219 language of Section 6C and inserting thereof the following:-

220 Section 6C: Massachusetts Communications Safety and Security Incentive Fund

221 Section 6C. The corporation shall establish a fund to be known as the Massachusetts  
222 Communications Safety and Security Incentive Fund. The corporation shall hold the fund  
223 separate and apart from its other funds, to finance the activities of the Massachusetts Broadband  
224 Institute. The corporation shall credit to the fund any appropriations, bond proceeds or other  
225 moneys authorized by the general court and specifically designated to be credited to the fund,  
226 and any other moneys legally available to the corporation which the board of the corporation  
227 may determine to deposit in the fund.

228 SECTION 3. Section 1A of Chapter 40J of the General Laws is hereby amended by  
229 inserting after the last sentence the following sentence:-

230 In advancing direct economic development initiatives, the corporation shall include in  
231 this definition the requirement to promote and support public and business systems which

232 support or allow for access to basic services and utilities, as well as for safety and security, in  
233 order to