

SENATE No. 1636

The Commonwealth of Massachusetts

PRESENTED BY:

John C. Velis, (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 and secure communications with radiation limits through the
Massachusetts Broadband Institute.

PETITION OF:

NAME:

Kirstin Beatty

DISTRICT/ADDRESS:

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SENATE No. 1636

By Mr. Velis (by request), a petition (accompanied by bill, Senate, No. 1636) of Kirstin Beatty, for legislation to ensure safer and secure communications by improving technological safety with radiation limits through the Massachusetts Broadband Institute. Public Health.

The Commonwealth of Massachusetts

**In the One Hundred and Ninety-Fourth General Court
(2025-2026)**

An Act ensuring safer and secure communications with radiation limits through 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. The legislature finds and confirms all of the following:-

2 Whereas, the use of wireless instead of wired telecommunications has been proven to be
3 for the benefit of private profits at the expense of public ownership, accountability, taxes, and
4 regulation as discussed by Bruce Kushnick in the Book of Broken Promises.

5 Whereas, the use of private instead of public ownership has been at the expense of has
6 net neutrality and free use of copper or other public lines, cost-efficacy, and reliable service as
7 discussed by Bruce Kushnick in the Book of Broken Promises.

8 Whereas, cellular services are the first to fail from natural hazards, as well as being a
9 causative factor in California fires such as the 2007 Malibu Canyon fire and the 2020 Silverado
10 Fire.

11 Whereas, wireless services are unusually energy intensive, with 4G using 23 times more
12 energy than wired services and 5G using 3 times as much as 4G, the latter discussed in Michael
13 Koziol's 2019 IEEE Spectrum article "5G's Waveform Is a Battery Vampire".

14 Whereas, hacking of digital communications is a threat, especially for wireless services,
15 but is a non-existent or lesser threat for off-line services, including traditional copper line
16 telecommunications.

17 Whereas, natural and man-made electromagnetic pulses (EMP) such as a huge solar flare
18 or a nuclear explosion can destroy functionality of the electric grid and also cause harm to
19 communications equipment, although infrastructure can be hardened and replacement equipment
20 set aside.

21 Whereas, traditional copper lines used for wired telecommunications have greater
22 reliability and sound quality than wireless or digital services.

23 Whereas, decades of research has provided thousands of studies indicating random
24 wireless exposures are harmful to public and environmental health.

25 Whereas, Dr. Martin Pall, Dr. Devra Davis, Dr. Henry Lai, Dr. Belpoggi, Dr. Belyaev,
26 Dr. De-Kun Li, Dr. Belpomme, and countless other reputable experts have provided recent, peer-
27 reviewed studies demonstrating that exposure to non-ionizing radiation like wireless and certain
28 electricity exposures causes DNA breaks and mutations in germ line cells that produce mutations
29 in future generations; produces oxidative stress and free radical damage that have major roles in
30 chronic disease; and attacks the endocrine and nervous systems including our hormone balance
31 and our brains.

32 Whereas, in 2020 Boston in FCC’s 19-226 docket stated: 'Boston believes that the
33 concerns of the public are real and that the Commission has done a disservice to itself, local
34 government, consumers, and even the wireless industry in failing to understand and respond to
35 the broadly shared mistrust of the safety of RF emissions.'

36 Whereas, the Pittsfield Board of Health in April 2022 issued an an Emergency Order to
37 Verizon to turn off a cell tower because of sick residents.

38 Resolved, that the policy goals of this act shall be to redirect the Massachusetts
39 Broadband Institute to focus on providing secure, reliable, and safer wired broadband and
40 telecommunication services, in addition to supporting public ownership with accompanying
41 greater accountability and free market access.

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

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

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

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

50 "Broadband" means high-speed internet access.

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

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

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

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

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

66 "Safe" shall mean in reference to broadband or telecommunication services that the
67 service is wired instead of wireless and that preference is given to using wired equipment and
68 services that best reduce electromagnetic radiation exposures.

69 “Secure” shall mean broadband and telecommunication service that is designed to limit
70 hacking or intrusion through technical design and cybersecurity; quality, working wired services
71 that best provide continuing, reliable function; and systems designed to continue functioning or,

72 secondarily, quickly return to function after an EMP or any natural hazard. Except where records
73 are public or warrants set in place, secure shall mean safe from surveillance.

74 (b) The corporation shall establish an institute for investment in safe and secure
75 broadband and communications infrastructure in the commonwealth, to be known as the
76 Massachusetts Broadband Institute, in recognition of communications as essential not only for
77 business but as essential for democracy and government functions. The executive director of the
78 corporation, subject to the approval of the board, shall appoint a qualified individual as director
79 to manage the affairs of the institute. The mission of the institute shall be to improve the safety
80 and security of communications while supporting reasonable access to communications.

81 Intent to manipulate the spirit of or failure to comply with its mission, rules, and
82 objectives as stated in this section shall be grounds for a cause of action against the MBI, as well
83 as or against persons complicit. This action may be brought forward by the attorney general; a
84 municipality or municipalities; or citizens of the Commonwealth. A vote of no confidence in the
85 MBI or corporation by the House of Representatives or Senate shall trigger and investigation by
86 the attorney general or the respective branch voting first may specify special counsel to conduct
87 an investigation.

88 (1) In meeting its mission and objectives, the MBI shall comply with several rules: (i)
89 MBI shall not arrange any contract to allow the commonwealth to assume any liability for
90 wireless facilities and transmissions; (ii) the MBI shall encourage municipal ownership of safe
91 and secure communications infrastructure with additional up-front funding; (iii) MBI shall
92 encourage and stipulate contracts for broadband open access with net neutrality; (iv) MBI shall
93 attend to risks and avoid investing in equipment or software vulnerable to hacking or outside

94 control, such as from corporations or foreign governments with concerning histories; (v) the MBI
95 shall favor and encourage investment in infrastructure and systems directly accountable to the
96 public especially that owned by the public; (vi) MBI shall discourage monopoly control by
97 private providers; (vii) MBI shall promote public wired and landline services with ongoing
98 maintenance; (viii) MBI information, budget, and proceedings shall be accessible and transparent
99 to the public; (ix) private-public partnerships shall be designed to confer significant benefits
100 including, but not limited to, compliance with MBI mission and objectives, ownership interest,
101 licensing fees, and training or consulting fees; (x) MBI shall attend to and manage to limit
102 environmental health risk including but not limited to that from lithium batteries,
103 electromagnetic radiation, and other pollutants; (xi) MBI shall prioritize safe and secure
104 communications of vital public safety and government functions; and (xii) MBI shall fairly
105 distribute investments across the state to improve safety, security, and accessibility of
106 communications.

107 (2) To improve technological safety, MBI shall reduce non-ionizing electromagnetic
108 exposures and fulfill these objectives by: (i) where possible, decommissioning wireless
109 communications facilities and antennas with due respect for maintaining basic access to essential
110 or emergency communications; (ii) where possible, turning off wireless functionality, reducing
111 other electromagnetic exposures, and hard-wiring broadband access in government facilities,
112 public schools, public libraries, and other public spaces; (iii) choosing to invest in wired
113 communication systems which have reduced fields, harmonics, and transients, including
114 traditional copper land-lines; and (iv) investing in hard-wired, secure broad-band systems or
115 hard-wiring existing secure broadband systems.

116 (3) Objectives for secure and reasonable access to communications shall include: (i)
117 providing for affordable access to secure communications service across the commonwealth for
118 essential commonwealth services as well as for residents that able to function best during natural
119 emergencies; (ii) connecting services to secure, decentralized sources of electricity; (iii)
120 identifying and utilizing protections to prevent destabilizing electromagnetic pulse (EMP) from
121 the sun or weapons at minimum to key communications services; (iv) insuring batteries
122 powering antennas function a minimum of 72 hours and are installed with precautions to limit
123 fire and pollution hazards; (v) utilizing copper or other wired connectivity if more secure.

124 (4) Additional objectives shall include (i) identifying and sharing information regarding
125 secure equipment and software, including open source, to provide for secure broadband access
126 for essential state and local services, including education; (ii) assisting with transition to secure
127 software, including open source, and equipment for essential state and local services; (iii)
128 providing relevant training to public entities, MBI staff, and other persons to advance the MBI
129 mission and objectives; and (iv) assisting with development of secure broadband access
130 distributed equitably across the state in public spaces such as libraries, universities, community
131 colleges, and broadband access centers.

132 (c) The institute shall be governed and its corporate powers exercised by a board of
133 directors, which shall consist of the following 12 members: the secretary of administration and
134 finance or his designee; the secretary of public health, who shall serve as chair; the secretary of
135 housing and economic development; the commissioner of telecommunications and cable or
136 designee; the executive director of the corporation or designee; the attorney general or designee;
137 a representative of the commonwealth's radiation department with expertise in non-ionizing
138 radiation; 3 members to be appointed by the attorney general with expertise in relevant

139 municipal and consumer rights; 4 members to be appointed by the governor, who shall each have
140 knowledge and experience in 1 of the following areas consistent with the mission and objectives
141 of the MBI: cybersecurity; telecommunications infrastructure; and grid or utility security. Each
142 member appointed by the governor or attorney general shall serve a term of 4 years and
143 thereafter until his successor is appointed. Any person appointed to fill a vacancy on the board
144 shall be appointed in a like manner and shall serve for only the unexpired term of such member.
145 Any appointed member shall be eligible for reappointment. An appointed member may be
146 removed by the governor or attorney general for cause.

147 Seven members of the board shall constitute a quorum, and the affirmative vote of a
148 majority of the members present and eligible to vote at a meeting shall be necessary for any
149 action to be taken by the board. Members which already have a full-time paid position with the
150 Commonwealth shall serve without compensation, others may receive a reasonable stipend for
151 meeting attendance, and each member shall be entitled to reimbursement for actual and
152 necessary expenses incurred in the performance of his official duties. The board shall meet at
153 least 4 times annually.

154 (d) The corporation shall leverage private sector, state, and federal investment by
155 financing the construction and acquisition of broadband infrastructure to promote the
156 development of broadband and communications safety, security, and access according to its
157 mission and objectives. Broadband infrastructure shall favor wired services with best
158 performance in relation to safety and security.

159 Subject in all cases to the MBI mission, objectives, and public interest, the corporation
160 may: (i) finance or acquire equipment or other property to be owned by the commonwealth or 1

161 or more other public entities, where the equipment or other property may be leased or licensed
162 by the corporation for a fee which shall be credited to the fund; (ii) make grants to 1 or more
163 public entities for the financing or acquisition of equipment or other property; and (iii) make
164 grants or loans to nonprofit entities or private corporations for the financing or acquisition of
165 equipment or other property in compliance with the MBI mission and objectives, provided
166 however that contractual arrangements provide relevant licensing fees; ownership interest;
167 regulatory oversight; and fair rates on loans.

168 The acquisition of an indefeasible right of use of facilities used for the transmission of
169 intelligence by electricity or of a license or other agreement to use electromagnetic spectrum
170 licensed by the federal government shall be the acquisition of an ownership interest in broadband
171 infrastructure and any such transaction shall constitute a transaction with the commonwealth for
172 the purposes of chapter 30B. Any lessee or licensee shall pay lease or license fees to the
173 corporation, which shall credit the fees to the fund. The corporation may provide and pay for
174 advisory services, employees, and technical assistance and take other actions as may be
175 necessary or desired to carry out its purposes.

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

180 Notwithstanding any general or special law or rule or regulation to the contrary, the
181 department of highways may lease or license for a term not to exceed 25 years any interest in
182 real property deemed appropriate by the corporation and the commissioner of highways to

183 promote the objectives of this chapter. The nature and extent of such interest shall be transferred
184 on such terms and conditions as the commissioner of highways may determine. The terms and
185 conditions of any conveyance executed pursuant to this subsection shall be approved by the
186 commissioner of capital asset management, in consultation with the inspector general and the
187 secretary of transportation.

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

194 Notice that such interest if available for lease or license shall be publicly advertised in 2
195 daily newspapers of general circulation published in the city of Boston and, if such real property
196 is located in any other city or town, in a newspaper of general circulation published in such other
197 city or town, once a week for 2 successive weeks. Such advertisements shall state the availability
198 of such interest, the nature of the competitive process and other information deemed relevant,
199 including the time and place where all pertinent information relative to the interest to be leased
200 or licensed may be obtained, the criteria for selection of a successful proponent, and the time,
201 place and manner for the submission of bids, proposals and the opening thereof. The
202 consideration for any such interest shall be within the estimated range of the fair market value of
203 the interest as determined by the corporation based upon an independent professional appraisal.
204 However, when necessary to forestall or balance monopoly, MBI shall provide or allow for

205 exceptions to competitive bidding. Any such interest conveyed by the department of highways
206 shall revert to the commonwealth at the expiration of any such term.

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

214 (e) The board shall collect information from reasonably available sources including, but
215 not limited to: municipalities and other public entities and agencies of the commonwealth, local
216 and regional nonprofit entities and telecommunications and broadband service providers to
217 develop and maintain an inventory of: (i) locations where telecommunications and broadband
218 services are not available in the commonwealth; (ii) locations where telecommunications and
219 broadband infrastructure is available or is likely to be available to support the provision of
220 services to unserved and underserved areas; (iii) locations where new infrastructure may be
221 necessary to support the provision of secure and safe services to unserved and underserved areas;
222 (iv) the quality of such services, including, but not limited to, speed of data transmission, length
223 of service during power outage, and cost of such services including landline service; (v)
224 providing a map to the public of wireless facilities including contact information for service and
225 emergencies; (vi) providing a map for the public of electric and magnetic peak power
226 measurements across the commonwealth for wireless communications; and (vii) and may choose

227 to assess peak power measurements or utilize other reliable sources of measurement from across
228 the commonwealth.

229 (f) The board shall establish a detailed long-term plan for the operation of the institute
230 and the administration of the fund and shall consult with the joint committee on
231 telecommunications, utilities and energy; the joint committee on children, families, and persons
232 with disabilities; and the joint committee on economic development and emerging technologies
233 on the plan. The plan, and any amendments thereto, shall be subject to the approval of the
234 secretary of health and human services and the secretary of administration and finance and shall
235 be filed with the clerks of the house of representatives and the senate who shall forward the same
236 to the house and senate committees on ways and means, the joint committee on
237 telecommunications, utilities and energy and the joint committee on economic development and
238 emerging technologies.

239 (g) The board shall annually adopt an operating plan governing disbursements from the
240 fund and, to the extent the plan provides for disbursement of appropriations or other moneys
241 authorized by the general court, the plan shall be subject to the approval of the secretary of
242 housing and economic development and the secretary of administration and finance. The board
243 shall file the plan, and any amendments thereto, with the clerks of the house of representatives
244 and the senate who shall forward the same to the house and senate committees on ways and
245 means, on children, families, and persons with disabilities, the joint committee on
246 telecommunications, utilities and energy and the joint committee on economic development and
247 emerging technologies.

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

250 (i) The board shall review and recommend changes in laws, rules, programs and policies
251 of the commonwealth and its agencies and subdivisions to further financing, infrastructure and
252 development for communications access in the commonwealth.

253 (j) The board shall prepare, publish and distribute, with or without charge, as the institute
254 may determine, any studies, reports and bulletins and other material as the institute deems
255 appropriate to accomplish goals and mission.

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

261 (l) Actions of the board may take effect immediately and notice thereof shall be published
262 and posted. Meetings of the board shall be subject to section 11A1/2 of chapter 30A. Records
263 pertaining to the activities of the institute shall be subject to section 10 of chapter 66, unless
264 exempted under subsection (h) of section 12. The operations of the institute shall be subject to
265 chapters 268A and 268B; provided, however, that the members of the board shall be considered
266 directors for the purposes of the fourth, fifth and seventh paragraphs of section 3.

267 (m) Sections 38A1/2 to 38O, inclusive, of chapter 7, section 39M of chapter 30, subject
268 to the provisions of subsection (c) of section 4A and sections 44A to 44J, inclusive, of chapter
269 149 shall apply to the operations of the institute.

270 SECTION 3. Chapter 40J of Title VII of the General Laws is hereby amended by striking
271 the language of Section 6C and inserting thereof the following:-

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

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

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

282 In advancing direct economic development initiatives as well as industrial and
283 commercial activities, the corporation shall promote public ownership of safe and secure wired
284 telecommunications and broadband communication lines in order to insure a functioning, safe,
285 cost-effective and secure communications accessible to business, consumers, and the vital
286 functions of government.