

Committee on Public Health
Bill Summary

Bill No. H2411

Title: *An Act reducing non-ionizing radiation in early to higher education*

Sponsor: Representative Patricia A. Duffy (By Request)

Committee: Public Health

Hearing Date: June 11, 2025

Similar Matters: None

Prior History: New file

Reporting Deadline: August 10, 2025

Current Law:

- **M.G.L. Chapter 15A** pertains to public education.
- **M.G.L. Chapter 15D** pertains to the Department of Early Education and Care.
- **M.G.L. Chapter 71** pertains to public schools.
- **M.G.L. Chapter 69** pertains to the powers and duties of the Department of Elementary and Secondary Education.
- **M.G.L. Chapter 69 § 1** pertains to the intent of the statewide public primary and secondary education system.

Summary:

This bill aims to reduce student exposure to non-ionizing radiation. It does so by requiring schools to reduce or eliminate sources of radiation, including antennas and telecommunications facilities. It also requires the Departments and Boards governing public, higher, and early education to develop guidance to assist in reducing exposure.

SECTION 1 states that the policy goal of this legislation is to actively reduce non-thermal non-ionizing radiation exposures from technology and electricity through establishing a process for public schools and higher education, providing guidance and evaluation through state boards, and rectifying the public education mission to include attention to environmental health.

Additionally, this section affirms that the legislature finds and confirms:

- Several countries prohibit wireless in public schools. California and several countries limit strong fields from electricity in public schools. Massachusetts has not made such prohibitions or limitations;
- Fields and poor power quality from electricity can be limited through shielding, filters, and other design, but wireless is essentially unshielded and unregulated;

- Only 50 studies led the U.S. Surgeon General to warn the public of tobacco's cancer risks, but hundreds and perhaps thousands of studies show harm caused by non-thermal non-ionizing radiation, which includes both electricity and wireless;
- FCC wireless guidelines fail to acknowledge wireless harm, despite numerous studies showing concrete harm;
- Strong fields and poor power quality from electricity can harm health, with 16 numerous statistical findings of increased cancer as well as other diseases;
- Approximately a thousand studies show non-ionizing radiation that is a million times below legal limits set by the FCC still disrupts calcium function, and because calcium is essential to cell signaling, this effect disrupts many biological processes;
- The federal government fosters wireless schools by subsidizing only wireless connectivity through its federal E-rate program; and
- The mission of the department and Board of Elementary and Secondary Education fails to acknowledge any role in fostering environmental health, and thus the drive to use technology is unchecked by physical and mental health considerations.

SECTION 2 amends M.G.L. Section 97 by inserting a new section, Section 98:

Section 98:

Subsection (a) defines “collocation,” “distributed antenna system,” “mobile service,” “non-ionizing radiation,” “small cell network,” “structures,” and “telecommunications service.”

Subsection (b) requires public schools to eliminate man-made non-ionizing radiation emissions known or likely to be harmful to the extent possible and within their means.

Subsection (c) requires public or independent schools to ensure that wireless antennas on school property are set to emit the minimum power density possible for the minimum time necessary. Public schools must prioritize the replacement of wireless broadband connectivity with hard-wired access and educate personnel on non-ionizing radiation reduction.

Subsection (d) requires public schools to set objectives to methodically reduce all non-ionizing radiation exposures and make progress public.

Subsection (e) requires public schools to prohibit use of school property for the construction of facilities to provide telecommunications and other mobile services. School districts must seek removal of existing facilities.

Subsection (f) requires that administration and progress toward the objectives of this section be a component of any public school or district review.

SECTION 3 amends M.G.L. Chapter 15A by inserting a new section, Section 15A:

Section 15A:

Subsection (a) defines “collocation,” “distributed antenna system,” “mobile service,” “non-ionizing radiation,” “small cell network,” “structures,” and “telecommunications service.”

Subsection (b) requires every public or independent institution of higher learning authorized to grant degrees located in Massachusetts to eliminate exposures to man-made non-ionizing radiation known or likely to be harmful to the extent feasible. Every such institution must

establish measures and take actions to reduce exposures to man-made non-ionizing radiation which is potentially harmful, unintentional, or of unknown effect.

Subsection (c) outlines the initial steps institutions must take:

- Ensuring any wireless antennas on school property that transmit are set to emit the minimum power density possible for the minimum time necessary with the minimum of pulsing and data;
- Prioritizing prompt replacement of wireless broadband and telecommunications connectivity in favor of hard-wired access;
- Educating students and staff on reducing non-ionizing radiation exposures at school and at home for better health; and
- Establishing routine monitoring systems to ensure wireless transmissions do not reset when resetting any existing wireless antennas to end or minimize transmissions.

Subsection (d) requires every institution to set objectives to methodically reduce all non-ionizing radiation exposures and establish reasonable deadlines to meet these objectives. Institutions must keep public records of progress towards each objective and a public record of why any objectives have not been obtained.

Subsection (e) requires all institutions to prohibit the use of campus property for the construction of facilities to provide telecommunications services and other mobile services. Such preexisting facilities must be removed to the extent within the institution's means and with the support of the Commonwealth.

SECTION 4 amends M.G.L. Chapter 71 by inserting a new section, Section 99:

Section 99:

Subsection (a) requires the Department of Elementary and Secondary Education, in coordination with the Board of Elementary and Secondary Education, to develop guidance and recommendations to assist schools in reducing man-made non-ionizing radiation exposures.

Subsection (b) requires guidelines to be based on current science independent of industry influence and adopt a cautionary stance. The department shall consider practices that protect the health and safety of public school students and staff and annually review and update guidance.

Subsection (c) outlines the steps the Board of Elementary and Secondary Education will take to adopt recommendations:

- Selecting recommendations that can be adopted with minimal financial burden;
- Setting reasonable deadlines for adoption;
- Prioritizing measures that reduce detrimental exposures and improve health

Subsection (d) requires the Board of Elementary and Secondary Education to develop a procedure to evaluate the administration and good faith efforts of public schools to reduce non-ionizing radiation

Subsection (e) states the Secretary of Education must submit to the Governor and Legislature reasoning for financial barriers to fulfilling the intent of this section

SECTION 5 amends M.G.L. Chapter 15A by inserting a new section, Section 45:

Section 45:

Subsection (a) requires the Board of Higher Education to develop guidance and recommendations in reducing man-made non-ionizing radiation exposure for public and independent institutions authorized to grant degrees

Subsection (b) requires guidelines to be based on current science independent of industry influence and adopt a cautionary stance. The board shall consider practices that protect the health and safety of public school students and staff and annually review and update guidance.

Subsection (c) outlines the steps the Board of Higher Education will take to adopt recommendations:

- Selecting recommendations that can be adopted with minimal financial burden;
- Setting reasonable deadlines for adoption;
- Prioritizing measures that reduce detrimental exposures and improve health

Subsection (d) requires the Board of Higher Education to develop a procedure to evaluate the administration and good faith efforts of public schools to reduce non-ionizing radiation

SECTION 6 amends M.G.L. Chapter 15D by inserting a new section, Section 11A:

Section 11A:

Subsection (a) requires the Board of Early Education and Care to develop guidance and recommendations in reducing man-made non-ionizing radiation exposure for public and independent institutions authorized to grant degrees

Subsection (b) requires guidelines to be based on current science independent of industry influence and adopt a cautionary stance. The board shall consider practices that protect the health and safety of public school students and staff and annually review and update guidance.

Subsection (c) outlines the steps the Board of Early Education and Care will take to adopt recommendations:

- Selecting recommendations that can be adopted with minimal financial burden;
- Setting reasonable deadlines for adoption;
- Prioritizing measures that reduce detrimental exposures and improve health

Subsection (d) requires the Board of Early Education and Care to develop a procedure to evaluate the administration and good faith efforts of early educational facilities to reduce non-ionizing radiation

SECTION 7 amends Section 1 of M.G.L. Chapter 69 by adding to the list of intentions of the statewide public primary and secondary education system. Specifically, this section affirms:

- Each public school classroom provides the conditions for pupils to engage in learning as an inherently meaningful and enjoyable activity without threats to their sense of security or self-esteem;
- A consistent commitment of resources sufficient to provide a high-quality public education to every child;
- Respectful process for attending to students' academic needs and developing talents;

- An effective system for supporting positive school climates, teacher quality, and professionalism;
- Ensuring the environmental health and safety of public school classrooms by supporting and developing policies designed to improve the environmental health of buildings.