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MJB&A Summary ■ April 2021

Act Creating a Next-Generation Roadmap for Massachusetts Climate Policy

On March 26, 2021, Massachusetts Governor Baker signed legislation, "An Act Creating a Next-Generation Roadmap for Massachusetts Climate Policy" ("the Act").[1] The Act amends the state's Global Warming Solutions Act (GWSA) and directs state agencies to set interim economy-wide greenhouse gas (GHG) emissions limits, as well as sector-based emissions sublimits for certain sectors, every five years. It codifies the state's long-term emissions limit of net-zero emissions by 2050 and directs the adoption of a 2030 emissions limit of "at least 50 percent below 1990 levels" and a 2040 emissions limit of "at least 75 percent below 1990 levels." The Act also increases Renewable Portfolio Standard (RPS) requirements, directs the creation of a municipal opt-in energy building code, addresses environmental justice protections, and directs the procurement of an additional 2,400 megawatts (MW) of offshore wind by 2027.

The Act is an amended version of a prior bill that Governor Baker vetoed and subsequently proposed technical and substantive amendments to in January 2021.[2] This summary reviews the main provisions of the Act, as well as amendments and other changes that were incorporated into the final version.

Statewide Emissions Limits

The Act directs the state's Office of Energy and Environmental Affairs (EEA) to set economy-wide GHG emissions limits, as well as sector-based sublimits for certain sectors, every five years. For each interim limit, EEA and state agencies must develop a "comprehensive, clear, and specific roadmap plan to realize said limit."

Economy-wide Interim Limits

The Act directs EEA to set statewide GHG emissions limits every five years, beginning in 2025. The Act also codifies the state's existing target of a 2050 emissions limit of "at least net zero statewide [GHG] emissions" (and no less than an 85 percent reduction in absolute GHG emissions below 1990 levels).[3]

The Act also requires a 2030 interim emissions limit of "at least 50 percent below 1990 levels" and a 2040 interim emissions limit of "at least 75 percent below 1990 levels." Governor Baker, after vetoing a prior version of the bill, instead proposed a 45-50 percent reduction for the 2030 limit, and a 65-75 percent for the 2040 limit.[4] However, this proposed amendment did not pass.

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1 Senate Bill 9, https://malegislature.gov/Bills/192/S9/.
2 Senate Bill 9 Amendments, https://malegislature.gov/Bills/192/S9/Amendments/Senate.
3 https://www.mass.gov/news/baker-polito-administration-issues-letter-establishing-net-zero-emissions-target.
4 In a letter accompanying his amendments, Governor Baker stated that his revisions would have "allow[ed] the Executive Branch to select a target that reflects the best available data and any changed circumstances that may make a more aggressive interim limit feasible and appropriate."

Sector-based Sublimits

Beginning in 2025, EEA must also "adopt sector-based statewide [GHG] emissions sublimits as components of each statewide [GHG] emissions limit" for the following sectors: electric power, transportation, commercial and industrial heating and cooling, residential heating and cooling, industrial processes, and natural gas distribution and service. The Act also provides the authority for EEA to adopt sublimits for additional sectors or sources to achieve the Act's GHG emissions limits.

Under a prior version of the bill that Governor Baker vetoed, sector-based sublimits would have been legally binding under all circumstances. However, the final Act incorporates an amendment proposed by Governor Baker that sublimits "shall not be found to have been binding for a given prior year if the commonwealth is found to have complied with the statewide [GHG] limit…. [of that same year]."

Development of Roadmaps and Compliance with Emissions Limits

Table 1 summarizes the Act's directives regarding interim emissions limits and associated deadlines to publish the required roadmaps.

Table 1: Interim Economy-wide GHG Emissions Limits as Directed in the Act

Year	Stringency of Emissions Limit	Inclusion of Sublimits	Deadline for Publishing Roadmap
2025	*EEA discretion*	✓	July 1, 2022
2030	At least 50% below 1990 levels	✓	July 1, 2022
2035	*EEA discretion*	✓	January 1, 2028
2040	At least 75% below 1990 levels	✓	January 1, 2033
2045	*EEA discretion*	✓	January 1, 2038
2050	At least net zero (and no less than an 85% reduction in absolute GHG emissions below 1990 levels)	✓	January 1, 2023, subject to subsequent revision and improvements[5]

Source: S.B. 9, https://malegislature.gov/Bills/192/S9/.

For both interim emissions limits and sector sublimits, the Act specifies that the roadmap must address each sector subject to an emissions sublimit and indicate for each sector "how, to what extent, and when the commonwealth will act to reduce its emissions in order to realize the 2050 statewide [GHG] emissions limit." Within a year and a half of any deadline for an interim limit, EEA must issue a statement to the state legislature indicating whether the emissions limit was achieved, and if not, describing "remedial steps that might be taken to offset the excess emissions and ensure compliance with the next upcoming limit."

[5] The 2050 sublimits and emissions reduction plan must be published by January 1, 2023 "provided, however, that the sublimits and plan shall be subject to revision and improvement by emissions reduction sublimits and plans adopted and published for 2030, 2035, 2040, and 2045."

The Act directs EEA and the Massachusetts Department of Environmental Protection (MassDEP) to promulgate regulations to require sources or categories of sources to reduce GHG emissions consistent with the roadmaps. The Act makes clear that such regulations can include "market-based compliance mechanisms" and must be designed to achieve necessary emissions reductions "equitably and in a manner that protects low- and moderate-income persons and environmental justice populations."

Electric Sector

Renewable Portfolio Standard

The Act directs MassDEP to revise the state's RPS requirements for Class I renewable resources. Specifically, MassDEP must increase the Class I requirement by three percent annually from years 2025 to 2029 (in comparison to the current two percent increase for that timeframe). This change will increase the state's RPS Class I requirement to 39 percent by 2029, after which, the RPS will resume the current trajectory of a one percent annual increase.

Department of Public Utilities Regulation

The Act includes provisions regarding use of the social cost of carbon in energy efficiency proceedings and tasks the Department of Public Utilities (DPU) with helping the entities it regulates to achieve the state's emissions limits and sublimits. Specifically, the Act directs DPU and utilities to, when calculating and evaluating the cost-effectiveness of utility energy efficiency programs and investment plans, "include calculations of the social value of [GHG] emissions reductions," except in some cases. The Act also modifies DPU's enabling statute to add the following: "In discharging its responsibilities…, the department shall, with respect to itself and the entities it regulates, prioritize safety, security, reliability of service, affordability, equity and reductions in [GHG] emissions to meet statewide [GHG] emission limits and sublimits established pursuant to [this Act]."

Offshore Wind Procurement Target

The Act increases the state's offshore wind procurement target from 1,600 MW to 4,000 MW by June 30, 2027. To meet that target, the Act also authorizes the state's Department of Energy Resources (DOER) to require distribution companies to jointly and competitively solicit and procure proposals for offshore wind energy transmission.

Emissions Standards for Municipal Lighting Plants

The Act requires each municipal lighting plant (MLP) to create a GHG emissions standard to achieve specified targets for electricity sold to all retail end-user customers (see Table 2).

Table 2: GHG Emissions Standards for MLPs

Year	Emissions Standard (Retail Electricity)
2030	50% "non-carbon emitting" energy
2040	75% "non-carbon emitting" energy
2050	"Energy sales achieving net-zero GHG emissions"

Source: S.B. 9, https://malegislature.gov/Bills/192/S9/.

To satisfy these standards, MLPs must either purchase or generate "non-carbon emitting" energy, as defined in the Act.[6] MLPs that fail to comply must make an alternative compliance payment (ACP).

Net Metering for Customer-Owned Solar

The Act directs state agencies to allow net metering for owners of new solar facilities (defined as achieving commercial operation on or after January 1, 2021). Specifically, the Act directs DOER and DPU to authorize the owner of any new solar facility to receive credits for any solar-generated electricity that exceeds the owner's usage during a billing period. Agencies must require the customer's electric distribution company to purchase "all or a portion of any credits produced by a solar facility at the rates provided for in the applicable statute, regulation, or tariff without discount, fee, or penalty."

Building Sector

The Act directs DOER to, within 18 months of the Act's effective date, develop and adopt "a municipal opt-in specialized stretch energy code that includes, but is not limited to, net-zero building performance standards and a definition of net-zero building, designed to achieve compliance with the commonwealth's statewide [GHG] emission limits and sublimits."

Governor Baker proposed several amendments to the prior bill intended to "provide clarity to municipalities as to how this code will be developed and adopted, and limit cost pressures to new affordable housing." Several of these amendments were incorporated into the final Act. For example, Governor Baker's proposed amendments included in the final Act clarify that DOER may elect to "phase in requirements based on building types, uses, or load profiles" in developing the stretch energy code. The amendments also extend the timeline to develop and adopt the stretch energy code from one year to 18 months after the Act's enactment and clarify that a municipality will not lose its "green community" designation if it does not opt into the energy code.

The Act also sets energy efficiency standards for 15 new appliances.[7]

Environmental Justice

The Act defines "environmental justice populations" and other key terms and includes several provisions intended to increase environmental justice protections. When evaluating proposed projects that are in proximity to, or are anticipated to affect, such populations, the Act requires state agencies to prepare environmental impact assessments and take additional public participation measures.

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[6] The Act defines "non-carbon emitting" to include: "(1) solar photovoltaic; (2) solar thermal electric; (3) hydroelectric, including imports into the New England wholesale electric market as administered by ISO New England Inc.; (4) nuclear; (5) marine or hydrokinetic energy; (6) geothermal energy; (7) landfill methane; (8) anaerobic digester gas; (9) wind energy; and (10) any other generation qualifying for renewable portfolio standards pursuant to section 11F or the department of environmental protection's clean energy standard regulation pursuant to 310 C.M.R. 7.75." Also included is "generation that has net lifecycle [GHG] emissions, over a 20-year life cycle, that yield at least a 50 percent reduction of [GHG] emissions per unit of useful energy relative to the lifecycle [GHG] emissions from the aggregate use of the operation of a new combined cycle natural gas electric generating facility using the most efficient commercially-available technology as of the date of the statement of qualification application to [MassDEP] for the portion of electricity delivered by the generation unit." Clean energy credits registered in NEPOOL GIS are also eligible.

[7] Appliances included under the energy efficiency standards include: commercial hot-food holding cabinets, computers and computer monitors, state-regulated general service lamps, high CRI fluorescent lamps, plumbing fittings, plumbing fixtures, portable electric spas, water coolers, residential ventilating fans, commercial ovens, commercial dishwashers, commercial fryers, commercial steam cookers, spray sprinkler bodies, and electric vehicle supply equipment.

The Act defines an "environmental justice population" as "a neighborhood that meets at least one or more of the following criteria:

- the annual median household income is not more than 65 percent of the statewide annual median household income;
- minorities comprise 40 percent or more of the population;
- 25 percent or more of households lack English language proficiency; or
- minorities comprise 25 percent or more of the population and the annual median household income of the municipality in which the neighborhood is located does not exceed 150 percent of the statewide annual median household income."

The Act provides that EEA may, under certain circumstances defined in the Act, choose to designate geographic portions of certain neighborhoods as "environmental justice populations" even if they do not meet the above criteria.[8] However, the Act also authorizes EEA to *not* designate a neighborhood as an "environmental justice population" upon finding that a neighborhood meets specific criteria defined in the Act.[9]

Environmental Justice Considerations for Environmental Impact Reports

The Act expands the Massachusetts Environmental Policy Act (MEPA) review process to require EEA to prepare a state environmental impact report for any project that is "likely to cause damage to the environment and is located within a distance of one mile of an environmental justice population." For projects that impact air quality, environmental impact reports are required "if the project is likely to cause damage to the environment and is located within a distance of five miles of an environmental justice population."

If EEA's environmental impact report determines that an environmental justice population is subject to "an existing unfair or inequitable environmental burden or related health consequence," the report must identify "any: (i) environmental and public health impact from the proposed project that would likely result in a disproportionate adverse effect on such population; and (ii) potential impact or consequence from the proposed project that would increase or reduce the effects of climate change on the environmental justice population."

If EEA determines that a proposed project is significant and will impact an environmental justice population, EEA must take additional public participation measures specified in the Act.[10] The Act also directs EEA to consider

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[8] If a neighborhood does not meet the criteria of an "environmental justice population" but a geographic portion of that neighborhood meets at least one criterion, the EEA "may designate that geographic portion as an environmental justice population upon the petition of at least 10 residents of the geographic portion of that neighborhood meeting any such criteria."

[9] "…the secretary may determine that a neighborhood, including any geographic portion thereof, shall not be designated an environmental justice population upon finding that: (A) the annual median household income of that neighborhood is greater than 125 per cent of the statewide median household income; (B) a majority of persons age 25 and older in that neighborhood have a college education; (C) the neighborhood does not bear an unfair burden of environmental pollution; and (D) the neighborhood has more than limited access to natural resources, including open spaces and water resources, playgrounds and other constructed outdoor recreational facilities and venues."

[10] Additional public participation measures include: making key documents available in English and any other language spoken by a significant number of the impacted environmental justice population; providing translation services at public meetings for environmental justice populations that lacks English proficiency in the project's designated geographic area; requiring public meetings be held in locations near access to public transportation; providing appropriate information on the project review procedure for the proposed project; and where feasible, establishing a local repository for project review documents, notices and decisions.

"environmental justice principles," as defined in the Act,[11] in making any policy or decisions on projects under review, in order to reduce unfair or inequitable impacts to environmental justice populations. Additionally, EEA must "establish standards and guidelines for the implementation, administration and periodic review of environmental justice principles" used by state agencies.

The Act also incorporates a proposed amendment from Governor Baker that requires MassDEP to develop regulations to require the preparation of cumulative impact analyses as a condition of issuing certain categories of air permits and approvals.

Environmental Justice Council

The Act also establishes an environmental justice council. The Governor will appoint nine to 15 members to the council to provide recommendations on policies and standards to meet environmental justice principles. By July 31, 2022, and every five years thereafter, the council must evaluate and analyze the definition of an "environmental justice population" and provide advice and policy recommendations to EEA when needed, to ensure the objectives of the state's environmental justice principles, as defined in the Act, are being met.

Additional Provisions

Clean Energy Equity Workforce and Market Development Program

The Act directs the creation of a "clean energy equity workforce and market development program" within the Massachusetts Clean Energy Technology Center to "provide workforce training, educational and professional development, job placement, startup opportunities and grants promoting participation in the commonwealth's energy efficiency, clean energy, and clean heating and cooling industries to: (i) certified minority-owned and women-owned small business enterprises; (ii) individuals residing within an environmental justice community; and (iii) current and former workers from the fossil fuel industry." The Act authorizes at least $12 million per year in program funding, which will be funded by customer charges to implement electric and gas energy efficiency programs.

Clean Energy Property Tax Exemptions

The Act amends the eligibility criteria for property tax exemptions for eligible wind and solar systems. Under the Act, property tax exemptions are available for eligible solar systems, wind systems, and solar or wind systems co-located with an energy storage system that are owned by entities other than distribution or electric companies. Facilities must either (i) produce not more than 125 percent of the yearly electricity needs of the property where it is located; (ii) be equal to or less than 25 kilowatts of capacity; or (iii) have entered a payment agreement in lieu of taxes with the municipality where the system is located. This exemption will be for 20 years, subject to certain exceptions. The Act also provides property tax exemptions for qualified fuel cell systems that commenced construction after January 1, 2020 and produce no more than 125 percent of yearly energy for the property upon which the system is located.

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[11] The Act defines "environmental justice principles" as "principles that support protection from environmental pollution and the ability to live in and enjoy a clean and healthy environment, regardless of race, color, income, class, handicap, gender identity, sexual orientation, national origin, ethnicity or ancestry, religious belief or English language proficiency."

Natural Gas Distribution

The Act directs gas distribution utilities to file plans with MassDEP to address leaking and/or aging natural gas infrastructure. Such plans are to include a timeline and interim targets to remove all leak-prone infrastructure either: 1) within 20 years of the gas company's initial filing, or 2) by a reasonable target end date considering allowable cost recovery caps. If interim goals are not met, MassDEP may issue a penalty of up to 2.5 percent of the gas company's transmission and distribution service revenues.

The Act authorizes DPU to approve a gas utility's application for a pilot project(s) to develop "utility-scale renewable thermal energy." Applications for such projects must be filed on or before January 1, 2023. Pilot projects are eligible for cost recovery if they "have a reasonable likelihood of facilitating substantial reductions in GHG emissions."

Municipal Solar Projects

The Act authorizes municipalities, including those with environmental justice populations at high risk from the effects of climate change, to approve one or more solar energy projects (paired with energy storage, where feasible) that are owned and operated by an electric or gas distribution company. The intent of such projects is to "improve community climate adaption and resiliency or contribute to the commonwealth meeting its carbon emissions limits." Municipalities with environmental justice populations are to receive a preference for participation in such projects. Projects undertaken by an electric or gas distribution company on behalf of a municipality are eligible for cost recovery, subject to criteria defined in the Act.

Heat Pump Market Development Program

The Act directs the Massachusetts Clean Energy Technology Center to administer, until 2026, a heat pump market development program to expand the markets for space and water heating using efficient heat pump technology.

Low-Income Services Solar Grant Program

The Act directs EEA to create a grant program to provide solar energy technology to eligible non-profit organizations offering services such as food security, homelessness, and emergency shelter. The program's budget is not to exceed $500,000 per fiscal year, subject to appropriation, and no grant amount can exceed $50,000.

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