

Massachusetts 2008 Energy Bill

An Act Relative to Green Communities, Senate Bill No. 2768

June 25, 2008



**Environment
Northeast**

This summary by Environment Northeast (ENE) of Massachusetts Senate Bill No. 2768, *An Act Relative to Green Communities*, focuses on the environmental and energy efficiency elements. The bill was released by the conference committee on June 23, and reconciles the differences between the Senate version, passed on January 9, 2008, and the House version, passed on November 14, 2007. It was approved unanimously by both houses of the legislature—the Senate on June 24, 2008 and the House on June 26, 2008—and signed into law by Governor Patrick on July 2, 2008.

The bill significantly reforms the state's energy policy, and makes a large new commitments to electric and natural gas energy efficiency programs, renewables, and clean fossil fuels like combined heat and power. It includes virtually all of ENE's highest priority policy recommendations for utility reform and efficiency and clean energy investments. These provisions may be supplemented by parallel proceedings to decouple utility revenue from sales ongoing at the Department of Public Utilities.

Summary of Major Bill Provisions

- ***Electric Energy Efficiency and Demand Resources:*** The bill requires electric distribution utilities to increase investments in energy efficiency and demand resource programs for all customers by: mandating investment in all demand side resources that are cost-effective or cheaper than supply; reducing consumers' energy bills; reducing emissions; and, reducing our reliance on imported fossil fuels.

The efficiency mandates are a remarkable achievement that puts Massachusetts in position to save its consumers hundreds of millions of dollars and substitute energy service jobs for fossil fuel expenditures. Currently, the state spends about \$6 billion dollars to buy electricity that costs at least 10 cents/kwh and only \$150 million on home grown energy efficiency, which can be delivered at 3 cents/kwh. The new regime introduced by this bill will rebalance the ledger by ensuring that the state invests in all energy efficiency and demand side resources that are cost-effective or cheaper than supply.

- ***Natural Gas Energy Efficiency:*** The natural gas distribution utilities are also required to increase their investments in energy efficiency programs for all customers to ensure that all cost-effective energy efficiency is captured. This will reduce consumers' energy bills, reduce emissions, and reduce our reliance on imported fossil fuels.
- ***Energy Efficiency Program Design and Oversight:*** A new oversight Council is established to ensure that demand resource plans maximize economic benefits to consumers. The Council will be comprised of a broad array of stakeholder constituencies including low-income, commercial and industrial, manufacturing, environmental and efficiency experts. The Council will provide essential oversight and will improve and enhance the utility-administered energy efficiency programs. The Council will have the benefit of hiring expert consultants to make sure efficiency programs are designed to maximize customer savings and cost-effectiveness.
- ***Regional Greenhouse Gas Initiative:*** This bill authorizes 100% auction of all RGGI allowances and directs proceeds to five uses: promotion of energy efficiency and demand response (minimum of 80% of revenue); reimbursement of municipalities in which tax receipts decrease due to RGGI (limited to 3 years); green communities (not to exceed \$10 million per year); zero-interest loans to some municipalities for efficiency projects; and, state administration of the cap and trade program.
- ***Renewable Portfolio Standard:*** The RPS has been divided into two classes. Class I includes new solar, wind, new and incremental hydro, and low-emission advanced biomass technologies. The bill sets a target that Class I resources should account for 15% of MA energy sales by 2020. Class II eligible technologies

includes existing low-emission biomass and existing hydro; targets for Class II RPS requirements will be set by Division of Energy Resources. Expanding the RPS uses the competitive marketplace to ensure that a larger slice of Massachusetts' electric energy comes from renewable sources.

- **Long Term Renewable Contracting:** As part of a 5 year pilot program, utilities are mandated to enter into long term contracts of 10-15 years in length for up to 3% of their total load. This is intended to spur construction and financing of new renewables.
- **Alternative Energy Portfolio Standard (AEPS):** The development of the AEPS in Massachusetts was a controversial and complicated process that began with an attempt to insert fossil fuel technologies into the RPS. The creation of the AEPS preserves the integrity of the RPS, limiting it to renewable technologies, and creates a competitive, market-based system for new non-renewable electric supply sources. The portfolio standard supports combined heat and power, gasified coal with carbon capture and permanent sequestration, flywheel, energy efficient steam technology and paper cube technology. It sets carbon dioxide emissions standards that must be reviewed every two years. The AEPS has a strict emissions limit that will require significant carbon capture and sequestration (CCS) from coal or petroleum based sources, which for coal should require about half of the carbon to be captured and permanently sequestered. ENE had hoped this emissions limit would be even stronger than the natural gas power plant average (currently in the range of 1,000-1,200 lbs/MWh), and we will work to have this standard tightened over time. Coal with CCS will also have to compete against more mature technologies, such as combined heat and power (CHP), which are more suitable for many locations in Massachusetts. ENE is optimistic that the AEPS will create a significant incentive for the development of new CHP in Massachusetts, which will help the state reduce its energy consumption and emissions.
- **Building Energy Codes:** The bill requires the Board of Building Regulations and Standards (BBRS) to adopt the latest edition of the IECC energy code, and to update its code within 1 year of any IECC revision. In addition, the BBRS must develop regulations: (1) to require all new construction and major renovations comply with the energy conservation code; (2) to certify and train energy inspectors; and, (3) to require energy performance commissioning for all new and renovated large, non-residential buildings.
- **Home Energy Scoring:** The bill requires the Board of Registration of Home Inspectors to develop requirements that home buyers be given documents outlining the procedures and benefits of home energy audits at the time of sale.
- **Green Communities:** The bill creates the Green Communities program, aimed at providing financial assistance (through award grants, loans and financing assistance) for a variety of efficiency and conservation projects at the municipal level. In addition, the Green Communities program is aimed at spurring cities and towns to take steps to reduce and improve the efficiency of their energy use. In order to qualify for financial assistance, the town must agree to a streamlined permitting process for new renewable projects. Funding for the Green Communities program will come, in part, from the sale of RGGI auction allowances, the Renewable Energy Trust Fund, and from Alternative Compliance Payments relating to Renewable Portfolio Standards.
- **Net Metering:** The bill establishes provisions around net metering, mandating that the aggregate capacity of net metering shall not exceed 1 percent of a distribution company's peak load. The department will continue to remove any impediments to the development of efficient, low-emissions distributed generation.



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Environment Northeast is a nonprofit research and advocacy organization focusing on the Northeastern United States and Eastern Canada. Our mission is to address large-scale environmental challenges that threaten regional ecosystems, human health, or the management of significant natural resources. We use policy analysis, collaborative problem solving, and advocacy to advance the environmental and economic sustainability of the region.

Detailed Bill Summary by Section

- SECTION 1. Requires the state, to the maximum extent feasible, to purchase hybrid or alternative fuel vehicles, with a goal of having at least 50% of the state's fleet be hybrid or alternative fuel vehicles by 2018.
- SECTION 2. Requires all new or renovated state facilities with costs over \$25,000 to conduct construction in a manner that minimizes life-cycle costs through energy efficiency, renewables, and water conservation.
- SECTION 3. Creates the RGGI Auction Trust Fund into which RGGI auction proceeds shall be deposited.
- SECTION 4. Creates the Office of Ratepayer Advocacy within the Attorney General's office, with the purpose of intervening, appearing and participating in utility regulatory, administrative and judicial proceedings on behalf of customers.
- SECTION 5. Requires the Board of Registration of Home Inspectors to develop regulation to require that single family or multiple-unit (up to 5) residential home buyers receive documentation outlining the procedures and benefits of a home energy audit at the time of sale.
- SECTION 6. Technical change.
- SECTION 7. Requires EOEAA to design and implement a bidding process for the competitive procurement of electric generation for any state agency or authority.
- Regional Greenhouse Gas Initiative:***
- a. Requires the DPU to adopt the RGGI cap and trade program.
 - b. Authorizes the sale of all RGGI allowances.
 - c. Directs proceeds to five uses: (1) reimbursement of municipalities in which the tax receipts decrease due to RGGI; (2) green communities; (3) zero interest loans to certain municipalities for efficiency projects; (4) promotion of energy efficiency and demand response; and (5) state administration of the cap and trade program.
 - d. Permits the state to participate in a regional cap and trade program.
- SECTION 8. Permits the Economic Assistance Coordinating Council under the Department of Economic Development to designate areas determined by a municipality to be an area with development potential for Class I renewable generation sources as an "economic target area."
- SECTION 9. Allows the DPU to conduct periodic audits of all regulated utility companies (except steam distribution companies), including a review of financial statements, documentation of reconciling mechanisms and service quality measures. Allows the attorney general to request a DPU audit.
- SECTION 10. Allows the DPU to make an annual assessment against each steam distribution company of up to \$600,000 for operation and general administration of the department.
- SECTION 11. ***Electric Energy and Natural Gas Efficiency and Demand Resources:***
- a. Establishes funding streams for electric distribution utilities that will allow increased investments in energy efficiency and demand resource programs including (1) preservation of the 2.5 mill systems benefit charge; (2) amounts generated from the Forward Capacity Market; (3) at least 80% of RGGI auction proceeds; (4) NOx Allowance Trading Program proceeds; (4) other funding as approved by the DPU.
 - b. Requires the DPU to approve and fund gas efficiency programs, including CHP and geothermal heating and cooling projects.
 - c. Efficiency funding shall be allocated equitably by customer class, but low-income subclass shall receive at least 10% of the electric efficiency program funds and at least 20% of the gas efficiency program funds.

- d. Preserves the 0.5 mill systems benefit charge for renewable energy development.
- e. Allows certain municipal lighting plants to elect to install a systems benefit charge for renewable energy development.
- f. Requires electric and gas distribution utilities to increase investments in energy efficiency and demand resource programs for all customers by mandating that all demand side resources that are cost-effective or cheaper than supply be captured, reducing consumers' energy bills, reducing emissions, and reducing our reliance on imported fossil fuels.
- g. Requires utility efficiency investment plans every 3 years. Proposed programs must be cost-effective.

Energy Efficiency Program Design and Oversight: a new oversight Council is established to ensure that demand resource plans maximize economic benefits to consumers. The Council is comprised of a 11 voting members, from the following stakeholder constituencies: (1) residential consumers, (2) the low-income weatherization and fuel assistance program network, (3) the environmental community, (4) businesses, including large C&I end-users, (5) the manufacturing industry, (6) energy efficiency experts, (7) organized labor, (8) the department of environmental protection, (9) the attorney general, (10) the executive office of housing and economic development, and (11) the department of energy resources. The Council will have the ability hire independent technical consultants.

- SECTION 12. Renames and reorganizes the Division of Energy Resources. DOER will be divided into 3 divisions: (1) energy efficiency; (2) renewable and alternative energy development; and (3) green communities.
- SECTION 13. Requires DOER Commissioner to file an annual report to the General Court.
- SECTION 14. Technical change.
- SECTION 15. Technical change.
- SECTION 16. Technical change.
- SECTION 17. Technical change.
- SECTION 18. Technical change.
- SECTION 19. Technical change.
- SECTION 20. Technical change.
- SECTION 21. Technical change.
- SECTION 22. ***Green Communities:*** creates the Green Communities program, aimed at providing financial assistance (through award grants, loans and financing assistance) for a variety of efficiency and conservation projects at the municipal level. In addition, the Green Communities program is aimed at spurring cities and towns to taking proactive steps to reduce and improve the efficiency of their energy use. In order to qualify for financial assistance, the town must agree to a streamlined permitting process for new renewable projects. Funding for the Green Communities program will come, in part, from the sale of RGGI auction allowances, the Renewable Energy Trust Fund, and from Alternative Compliance Payments relating to Renewable Portfolio Standards. Funding of Green Communities program is capped at \$10 million per year.
- SECTION 23. Allows state agencies, building authorities and local government bodies to enter into contracts for the procurement of energy management services, and sets out a process to enter into such contracts.
- SECTION 24. Technical change.
- SECTION 25. Technical change.

SECTION 26. Technical change.

SECTION 27. Technical change.

SECTION 28. Technical change.

SECTION 29. Technical change.

SECTION 30. Technical change.

SECTION 31. Technical change.

SECTION 32. **Renewable Portfolio Standard:** the RPS has been divided into two classes. Class I is dedicated to new renewables (beginning operation after December 31, 1997) and includes (1) solar photovoltaic or solar thermal electric energy; (2) wind energy; (3) ocean thermal, wave or tidal energy; (4) fuel cells utilizing renewable fuels; (5) landfill gas; (6) energy generated by new hydroelectric facilities, or incremental new energy from increased capacity or efficiency improvements at existing hydroelectric facilities; (7) low emission advanced biomass power conversion technologies; (8) marine or hydrokinetic energy; or (9) geothermal energy. The target for Class I resources is increased to 15% of MA energy sales by 2020.

Class II is dedicated to existing renewables (beginning operation before December 31, 1997) and includes (1) solar photovoltaic or solar thermal electric energy; (2) wind energy; (3) ocean thermal, wave or tidal energy; (4) fuel cells utilizing renewable fuels; (5) landfill gas; (6) energy generated by existing hydroelectric facilities; (7) waste-to-energy (but only if it contracts for a state-approved recycling program); (8) low emission advanced biomass power conversion technologies; (9) marine or hydrokinetic energy; or (10) geothermal energy. Targets for Class II RPS requirements will be set by Division of Energy Resources.

Alternative Energy Portfolio Standard: beginning on January 1, 2009 all electric energy sold in the state must have a minimum percentage supplied from AEPS qualified sources. The percentage will be set by DOER through an administrative proceeding. Technologies that qualify for the standard shall include: fossil fuels that are gasified and utilize carbon capture and permanent sequestration (level of CCS based on the net emissions standard); combined heat and power; flywheel energy storage; Paper derived fuel that is deemed by DEP to provide environmental benefits; energy efficient steam technologies; and other technologies to be determined by DOER. There are limit on fossil fuels qualifying and nuclear can not qualify.

There is an explicit emissions limit that will require significant carbon capture and sequestration from any coal or petroleum based sources: the CO₂ emissions limit must be at least as stringent as the average emissions rate of natural gas fired power plants in the state; the CO₂ emissions limit shall be on a net basis including all emissions associated with gasification, sequestration, and combustion, which will require approximately one-half capture and permanent sequestration of CO₂ from coal; for combined heat and power the emissions limit shall be based on both electric and thermal output; and the exact standard will be set by DOER in consultation with DEP and shall be reviewed and strengthened every two years. An alternative compliance payment shall be set by DOER

SECTION 33. Technical change.

SECTION 34. Technical change.

SECTION 35. Technical change.

SECTION 36. Technical change.

SECTION 37. Provides for an alternative mechanism for state agencies, building authorities and local government bodies to enter into energy management services contracts.

SECTION 38. Technical change.

- SECTION 39. Technical change.
- SECTION 40. Technical change.
- SECTION 41. Technical change.
- SECTION 42. Technical change.
- SECTION 43. Allows DOER to access funds in the DOER Credit Trust Fund without requiring legislative appropriation.
- SECTION 44. Provides for streamlined contracting processes for state agencies, building authorities and local government bodies who want to enter into contracts with electric or gas utilities for energy conservation projects with a total cost of less than \$100,000.
- SECTION 45. Technical change.
- SECTION 46. Technical change.
- SECTION 47. Technical change.
- SECTION 48. Adds the Secretary of Energy and Environmental Affairs to the MTC board of directors.
- SECTION 49. Establishes the Renewable Energy Trust Fund within the Massachusetts Technology Park Corporation and creates a 9 member governing board which includes the commissioner of energy resources (chair); the secretary of energy and environmental affairs or a designee; the secretary of housing and economic development or a designee; the secretary of administration and finance or a designee; 1 member of the board to be appointed by the chair of the board; and 4 members to be appointed by the governor. The governing board will have wide-ranging responsibilities for developing strategic plans and the disbursement of funds.
- SECTION 50. Extends the authorized payback period for local debt related to energy conservation and renewable and alternative energy projects from 10 to 20 years.
- SECTION 51. Definitions relating to alternative fueled vehicles.
- SECTION 52. Definitions relating to alternative fueled vehicles.
- SECTION 53. Definition relating to efficiency of hybrid vehicles.
- SECTION 54. Requires building inspectors to have knowledge of energy code requirements.
- SECTION 55. ***Building Energy Codes***. the bill requires the Board of Building Regulations and Standards (BBRS) to adopt the latest edition of the IECC energy code, and to update its code within 1 year of any IECC revision. In addition, the BBRS must develop regulations (1) to require all new construction and major renovations comply with the energy conservation code, (2) to certify and train energy inspectors, (3) to require energy performance commissioning for all new and renovated large, non-residential buildings.
- SECTION 56. Delineates regulatory authority of common carriers among DPU and Dept. of Telecommunications and Cable.
- SECTION 57. Definitions relating to manufacture and sale of gas and electricity.
- SECTION 58. Expressly allows electric companies and distribution companies from building, owning, and operating solar energy facilities. Cap is 25 MW before January 1, 2009 and 50 MW after January 1, 2010.
- SECTION 59. Repeals SECTION 58 (note repeal effective date of 2012 in SECTION 122).
- SECTION 60. Requires utilities to provide information about competitive supply options.
- SECTION 61. Increases maximum penalty for utility failure to meet service quality standards from 2% to 2.5%.

- SECTION 62. Technical change.
- SECTION 63. Deletes DPU requirement to investigate low-income discount rates.
- SECTION 64. Provides for low-income discount rates for eligible residential consumers.
- SECTION 65. Technical change.
- SECTION 66. Clarification that municipal light plant activities shall not be considered energy brokering of individual members.
- SECTION 67. Adds steam distribution companies to the list of utilities who are responsible for the administration of an underground plant damage prevention system.
- SECTION 68. Adds steam distribution companies to the list of utilities who are responsible for the administration of an underground plant damage prevention system.
- SECTION 69. Excludes steam distribution companies from being authorized to consolidate, merge, or sell or convey properties.
- SECTION 70. Authorizes municipal light plant company personnel to inspect meters on private premises.
- SECTION 71. Clarifies company rights to meter inspection.
- SECTION 72. Clarifies company rights to meter inspection.
- SECTION 73. Clarifies company rights to meter inspection.
- SECTION 74. Technical change.
- SECTION 75. Streamlines the DPU approval process for municipal aggregation plans.
- SECTION 76. Technical change.
- SECTION 77. Technical change.
- SECTION 78. **Net Metering.** establishes provisions around net metering, the aggregate capacity of net metering shall not exceed 1 per cent of the distribution company's peak load. The department will continue to remove any impediments to the development of efficient, low-emissions distributed generation.
- SECTION 79. Establishes DPU oversight and regulation of steam distribution companies.
- SECTION 80. Technical change.
- SECTION 81. Technical change.
- SECTION 82. Technical change.
- SECTION 83. **Long Term Renewable Contracting:** as part of a 5 year pilot program, utilities are mandated to enter into long term contracts of 10-15 years in length for up to 3% of their total load to spur construction and financing of new renewables. Utilities will receive compensation of 4% of the annual contract payments for accepting the financial obligation of the long-term contract.
- SECTION 84. Establishes an "energy pay and save" pilot program (50-200 participants) within EOEAA that promotes on-bill financing of energy efficiency or renewable energy products.
- SECTION 85. Requires each electric utility to propose smart grid pilot program, with the objective to reduce peak and average loads by a minimum of 5 per cent.
- SECTION 86. Requires the DPU to direct all distribution companies to submit plans to provide retail access to competitive sellers of renewable energy attributes.
- SECTION 87. Establishes a special commission to study the burning of construction and demolition waste as it relates to the RPS. The commission's recommendations are due July 1, 2009.

- SECTION 88. Establishes a green building commission to examine the economic and environmental impacts of establishing a green building plan for the state. The commission's report is due December 31, 2009.
- SECTION 89. Establishes a commission to study the siting of energy facilities in the state, which must report its findings 18 months after the effective date of the act.
- SECTION 90. Establishes a DOER pilot program to assist residential consumers with the purchase of energy efficient products through zero and low interest loans.
- SECTION 91. Requires the DPU to file a report by January 1, 2011 on the effectiveness of the all cost-effective efficiency mandate.
- SECTION 92. Requires DPU hearings on the maintenance and improvements of gas utility gate boxes.
- SECTION 93. Dedicates RPS alternative compliance payments to the following purposes: (1) green communities; (2) state or community colleges engaged in renewable or other energy projects; (3) in-state flywheel companies; (4) capital investments in generating units that burn Massachusetts manufactured paper cubes.
- SECTION 94. Requires the DPU to review and assess the effects of allowing utilities to build and own solar generation facilities, and to report to the legislature by June 30, 2011.
- SECTION 95. Exempts existing mergers or consolidations of holding companies from MGL 164 § 96.
- SECTION 96. Requires that DCAM establish a methodology for assessing life-cycle costs for all state agencies.
- SECTION 97. Requires the energy advisory council to commission a cost-effectiveness study of energy efficiency and demand response programs. The report is due December 31, 2009.
- SECTION 98. Requires DPU to set rules under which non-utility competitive suppliers can be included in retail billing programs.
- SECTION 99. Requires the Mass. Turnpike Authority to develop a plan for providing alternative fueling terminals at all turnpike fueling facilities by January 2014.
- SECTION 100. Requires DOER to develop a master plan for the advancement of hybrid and alternative fueled vehicles. The plan is due to the legislature within 18 months of the bill's passage.
- SECTION 101. Requires the operational services division to develop a plan for facilitating bulk purchases of alternative fuels.
- SECTION 102. Requires DPU to hold a public hearing to examine the impacts of competitive retail electricity marketplace through the default service mechanism.
- SECTION 103. Requires utilities to file plan for compliance with billing requirements.
- SECTION 104. First Green Communities reporting deadline will be April 1, 2020.
- SECTION 105. Sets RPS eligibility requirements for renewable energy imported from outside the ISO-NE region. The generating source must be a "committed capacity resource" and will only receive RPS credit for renewable energy actually generated and delivered. Any RPS credits shall be reduced by any exports made by the generator from the ISO-NE region. DOER will develop regulations and will assess the feasibility of the import standards.
- SECTION 106. Requires Dept. of Housing and Community Development to make recommendations on the use of state funds for LIHEAP.
- SECTION 107. Requires DOER to study the viability of municipal-owned electric utilities.
- SECTION 108. Requires DOER and UMASS to create a community educational pilot program to provide education on the economic benefits of energy efficiency and demand response.

SECTION 109.Requires DPU to open an investigation of *ex parte* communications.

SECTION 110.Prohibits the reduction of amounts or percentages of funding for low-income efficiency programs below January 1, 2008 status quo.

SECTION 111.Requires utilities to file their first efficiency plans with the energy efficiency advisory council on April 30, 2009. The utilities and council must file the plan and any comments with the DPU on October 31, 2009.

SECTION 112.Requires DEP to adopt regulations implementing RGGI provisions by March 1, 2009.

SECTION 113.Clarifies that RGGI section of this bill does not affect any multiyear RGGI agreements.

SECTION 114.Limits RGGI payments to host communities to tax years beginning on January 1, 2009 and expires on December 31, 2011.

SECTION 115.Allows DEP to withhold RGGI allowances (vintage 2009-2012) from auction to transition from 310 CMR 7.29 to RGGI.

SECTION 116.Sets state renewable, alternative and energy efficiency goals: (1) meet at least 25 per cent of the commonwealth's electric load by the year 2020 with demand side resources; (2) meet at least 20 per cent of the commonwealth's electric load by the year 2020 through new, renewable and alternative energy generation; (3) reduce the use of fossil fuel in buildings by 10 per cent from 2007 levels by the year 2020 through the increased efficiency of both equipment and the building envelope; (4) develop a plan to reduce total energy consumption in the commonwealth by at least 10 per cent by 2017 through the development and implementation of the green communities program.

Requires EOEEA to prepare a 5 year plan to meet the energy efficiency and renewable/alternative energy goals.

SECTION 117.RGGI section takes effect on July 1, 2008.

SECTION 118.RPS changes take effect on January 1, 2009.

SECTION 119.AEPS takes effect on January 1, 2009.

SECTION 120.IECC mandate takes effect 6 months after passage.

SECTION 121.Home energy audit information takes effect 1 year after passage.

SECTION 122.Repeal of utility owned solar generation (Section 59) takes effect June 30, 2012.

SECTION 123.Hybrid efficiency increase from 10% to 25% (Section 53) takes effect 3 years after passage.

SECTION 124.Technical change (Section 80) takes effect April 10, 2007.