



Massachusetts

Massachusetts has over 21,000 miles⁷⁵ of natural gas pipelines. According to the state, approximately 52% of households, or 1.4 million homes,⁷⁶ heat with natural gas.

Summary

Incentives and Subsidies	<ul style="list-style-type: none"> Heat pump subsidies Electrification incentives Low-income transition incentives
System Replacement	<ul style="list-style-type: none"> Geothermal pilots funded by rate payers
Renewable Fuels	<ul style="list-style-type: none"> No rate payer funded projects or supply
Cost of Service Changes	<ul style="list-style-type: none"> Marketing costs no longer recoverable Change in gas decoupling methods Future examination of CIAC and accelerated depreciation
Operational Changes	<ul style="list-style-type: none"> Required consideration of non-pipe alternatives
Climate Change Planning	<ul style="list-style-type: none"> Required filing of climate planning



Substantial heat pump rebates through Mass Save®

Massachusetts spends close to \$4 billion every three years on rate payer funded energy efficiency programs. In the last plan for 2022 to 2024, over \$800 million was allocated for strategic electrification, including heat pump subsidies and other market transformational work, designed to electrify the household equivalent of 43,000 homes. The plan also included over \$30 million of performance incentives for utilities as performance incentives tied to electrification goals.⁷⁷

The current plan in process for 2025-2027 is increasing this electrification target to 115,000 homes.⁷⁸ The rebates are offered through a common statewide marketing program called Mass Save®. In addition to the Mass Save® rebates and programs for heat pump installations, there are also incentives for Alternative Energy Credits under the Massachusetts Alternative Portfolio Standard,⁷⁹ which provides financial credits for each unit of heat produced by renewable energy systems. There are also a multitude of programs targeted to low-income customers.

⁷⁵ <https://www.mass.gov/info-details/natural-gas-distribution>


⁷⁶ <https://www.mass.gov/info-details/how-massachusetts-households-heat-their-homes>

⁷⁷ <https://fileservice.eea.comacloud.net/FileService.Api/file/FileRoom/14149885> and <https://ma-eeac.org/wp-content/uploads/2022-2024-Term-Sheet-10.26.21-Final-with-Exhibits.pdf>

⁷⁸ https://ma-eeac.org/wp-content/uploads/EEDPlan-2025-2027-Plan-ES-Report_Final5116444.pdf. P.3


⁷⁹ <https://www.mass.gov/alternative-energy-portfolio-standard>

Mass Save® Heat Pump Rebates




Air-source heat pumps

- Up to \$10,000
- Up to \$16,000 income-based incentives



Air to Water heat pumps

- Up to \$10,000
- Up to \$16,000 income-based incentives



Ground-source Heat Pumps

- Up to \$15,000
- Up to \$256,000 income-based incentives

Approval of three geothermal pilots

Massachusetts examined ideas to replace the gas system in a large future of gas policy docket (D.P.U. 20-120). Three ideas were explored: (1) using hybrid heating systems, (2) strategic electrification, and (3) geothermal.

The utilities noted that using hybrid heating systems would allow for a lower-risk transition. There was substantial pushback on this energy transition option by environmentalists. The Department did not approve the use of additional ratepayer dollars for hybrid heating system pilots, noting that it would be impractical to maintain the gas distribution system solely for backup furnaces in cold weather.⁸⁰

Strategic electrification was endorsed as a potential option. The Massachusetts D.P.U. directed each local gas utility to propose, in coordination with the applicable electric distribution company, at least one demonstration project in its service territory for decommissioning an area of its system through targeted electrification.

Geothermal had a positive reception as a potential option to offer decarbonized heat. To date, three geothermal pilots have been approved.

Furthermore, to attract funding for geothermal projects and foster community engagement and education about the benefits of geothermal systems, the Massachusetts Clean Energy Center awarded a grant of \$450,000 for the Home Energy Efficiency Team (HEET) to launch the Kickstart Mass initiative. The initiative provides grants of up to \$50,000 to communities through a competitive application process.⁸¹

⁸⁰ DPU 20-80 B. p.81

⁸¹ <https://www.heet.org/Kickstart-Massachusetts>

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Gas System Replacement Pilots

Company	Description	Reference
Eversource – NSTAR Gas	Geothermal <ul style="list-style-type: none"> Designed to test the logistical viability and business model impacts of a utility-run geothermal distribution network Framingham, Massachusetts 	D.P.U. 19-120 October 2020
Eversource – EGMA	Geothermal <ul style="list-style-type: none"> In Lawrence, Andover, and North Andover, Massachusetts Administered by DOER and the Attorney General Part of the Merrimack Valley Renewal Fund 	D.P.U. 20-59 October 2020
National Grid – Bay State Gas	Geothermal <ul style="list-style-type: none"> \$15.6 m pilot, five years Utility to install, own, operate and maintain four geothermal shared-loop systems serving 20-40 residential and/or commercial customers Partially paid for by participant fees 	D.P.U. 21-24 December 2021

Little support for renewable fuels


In the same policy docket D.P.U. 20-120, there was little support for renewable fuels, including renewable natural gas and hydrogen. Critics noted renewable natural gas (RNG) and hydrogen blending are new, unproven, and uncertain. The Department of Public Utilities (DPU) agreed that local distribution companies (LDCs) can research and assess the potential of these technologies. However, until RNG and hydrogen are proven to be viable alternatives that align with Massachusetts' climate goals, any infrastructure costs incurred for their development will not be passed on to all customers but must be borne by utility shareholders or program participants.⁸² Furthermore, a potential mandate that a portion of the gas supply be sourced from renewable natural gas, analogous to how a portion of the electric supply is required to be renewable, was rejected. Customers can voluntarily purchase renewable options, but they must pay for the full cost of this more expensive gas source.

Certified natural gas (certified gas) has not yet been adopted in Massachusetts and requires further investigation. Although upstream natural gas emissions are not included in the Massachusetts GHG inventory, certified gas measures can still reduce the overall environmental impact of natural gas use, even as its use declines.

⁸² DPU 80-20 B, p.71



Some cost-of-service changes

Regarding rate case issues, the DPU 80-20B docket did include some notable changes including a new view on prudence, disallowance of marketing costs, and changes to the decoupling method. In addition, further study of depreciation rates and CIAC is mandated.

Future gas investments will be examined for prudence in the context of the Commonwealth's net zero goals. In particular, the Department will generally require the examination of non-gas pipeline alternatives ("NPAs"). NPAs are broadly defined to include electrification, thermal networked systems, targeted energy efficiency, demand response programs, consumer behavior changes, and market transformation. Going forward, LDCs will have the burden to demonstrate the consideration of NPAs as a condition of recovering additional investment in pipeline and distribution mains. Historical investments are not affected.

Furthermore, LDCs are no longer permitted to recover costs for marketing related to promoting gas service.

Finally, decoupling has historically allowed utilities to capture gas growth, with a revenue per customer construct. As gas growth is no longer desired, this construct will be changed to a revenue cap approach, which better aligns with the policies of the Commonwealth expressed in current climate laws.

More study is required on other cost of service issues. The Department mandated that all LDCs undertake a comprehensive review to estimate the potential magnitude of stranded investments and to evaluate the impacts of accelerated depreciation, exploring alternatives beyond traditional methods. No changes in contribution in aid of construction (CIAC) have been implemented, as further analysis of current models and development of a common framework may be necessary. The standard of review for special gas contracts going forward is also being examined in docket D.P.U. 18-152.



Required analysis of non-pipe alternatives

In terms of operational and day-to-day issues in the gas system, the largest change noted in the DPU 80-20B proceeding was the requirement of non-pipe alternative analysis. LDCs are required to move beyond "business as usual" in their gas system planning. The goal is to discourage further expansion of the natural gas distribution system and minimization of costs that may be stranded in the future as decarbonization measures are implemented in the natural gas industry. The Department will require utilities to examine non-gas pipeline alternatives as a condition of recovering additional investment in pipeline and distribution mains.

Parties in the docket also brought up the issue of pre-approval of gas investments, but it was not adopted by the Department.



Climate plans every five years

The Department found that the clean energy transition will require coordinated planning between LDCs and electric distribution companies, monitoring progress through LDC reporting, and aligning existing Department practices with climate targets. The Department ordered the LDCs to submit individual Climate Compliance Plans every five years beginning in 2025 and propose climate compliance performance metrics in their upcoming performance-based regulation filings, ensuring a proactive approach to achieving climate targets.⁸³

⁸³ DPU 20-80 B, p.134