

**SENATE . . . . . No. 2249**

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**The Commonwealth of Massachusetts**

PRESENTED BY:

***Cynthia Stone Creem***

*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 relative to a tactical transition to affordable, clean thermal energy.

PETITION OF:

NAME:	DISTRICT/ADDRESS:	
<i>Cynthia Stone Creem</i>	<i>Norfolk and Middlesex</i>	
<i>Steven Owens</i>	<i>29th Middlesex</i>	<i>1/24/2025</i>
<i>Joanne M. Comerford</i>	<i>Hampshire, Franklin and Worcester</i>	<i>3/13/2025</i>
<i>Mike Connolly</i>	<i>26th Middlesex</i>	<i>3/20/2025</i>
<i>Lydia Edwards</i>	<i>Third Suffolk</i>	<i>3/31/2025</i>
<i>Liz Miranda</i>	<i>Second Suffolk</i>	<i>4/8/2025</i>
<i>Vanna Howard</i>	<i>17th Middlesex</i>	<i>5/7/2025</i>
<i>Patricia D. Jehlen</i>	<i>Second Middlesex</i>	<i>5/29/2025</i>
<i>James B. Eldridge</i>	<i>Middlesex and Worcester</i>	<i>6/12/2025</i>
<i>Edward J. Kennedy</i>	<i>First Middlesex</i>	<i>7/29/2025</i>
<i>Carmine Lawrence Gentile</i>	<i>13th Middlesex</i>	<i>10/14/2025</i>

**SENATE . . . . . No. 2249**

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By Ms. Creem, a petition (accompanied by bill, Senate, No. 2249) of Cynthia Stone Creem and Steven Owens for legislation relative to the future of heat in the Commonwealth. Telecommunications, Utilities and Energy.

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[SIMILAR MATTER FILED IN PREVIOUS SESSION  
SEE SENATE, NO. 2105 OF 2023-2024.]

**The Commonwealth of Massachusetts**

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

An Act relative to a tactical transition to affordable, clean thermal energy.

*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. Section 9 of chapter 25 of the General Laws, as so appearing, is hereby  
2 amended by inserting after the word “gas” the following words:-

3 “, utility-scale non-emitting thermal energy”

4 SECTION 2. Section 1 of chapter 164 of the General Laws, as so appearing, is hereby  
5 amended by inserting after the definition of “Mitigation” the following definition:-

6 “Non-gas pipe alternative,” a retirement of a gas pipeline, an advanced leak repair of gas  
7 infrastructure, or an installation of non-emitting thermal infrastructure, including, but not limited  
8 to, electrification of space heating, that: (i) delays, reduces or avoids the need to construct,

9 expand or replace gas infrastructure; and (ii) reduces greenhouse gas emissions as required by  
10 chapter 21N.

11 SECTION 3. Section 94 of said chapter 164 is hereby amended by inserting at the end of  
12 the first paragraph the following:-

13 “The department shall not permit a gas company to recover through rates, prices or  
14 charges the costs of construction, expansion or replacement of gas distribution infrastructure  
15 unless the gas company demonstrates to the department through its own analysis and through the  
16 analysis of requests for proposals solicited through a competitive process from independent  
17 entities that all applicable non-gas pipe alternatives were considered and found to be non-viable  
18 or cost prohibitive.”

19 SECTION 4. Said section 94 of said chapter 164 is hereby further amended by striking  
20 out, each time they appear, the words “gas or electricity” and inserting in place thereof, in each  
21 instance, the following:-

22 “gas, utility-scale non-emitting thermal energy or electricity”

23 SECTION 5. Said section 94 of said chapter 164 is hereby further amended by striking  
24 out, each time they appear, the words “gas or electric service” and inserting in place thereof, in  
25 each instance, the following:-

26 “gas service, utility-scale non-emitting thermal energy service or electric service”

27 SECTION 6. Section 106 of said chapter 164 is hereby amended by inserting after the  
28 word “chapter” the following:-

29 “; provided, that the department shall restrict the injection of any amount of a substitute  
30 fuel from any source into a gas distribution system that delivers thermal energy to a building  
31 unless it determines that such substitute fuel: (i) is non-greenhouse gas emitting in its lifecycle;  
32 (ii) does not pose a safety hazard to persons or property; and (iii) has reliable sources of supply  
33 that ensure affordability for customers; and provided further, that the department shall prohibit  
34 the injection of any amount of hydrogen into a gas distribution system that delivers thermal  
35 energy to a residential, municipal, commercial or other building, except that the department may  
36 permit the injection of hydrogen produced from a renewable energy generating source, as  
37 defined in section 11F of chapter 25A, into a gas distribution system that delivers thermal energy  
38 for an industrial process that is difficult to decarbonize.”

39 SECTION 7. Section 141 of said chapter 164 is hereby amended by inserting at the end  
40 thereof the following:-

41 (b) In a rate design or other plan for a utility-scale non-emitting thermal energy system  
42 filed pursuant to this chapter, the department shall approve a merger of the rate base of such  
43 system with the rate base of gas infrastructure and shall permit cross-subsidization between gas  
44 ratepayers and utility-scale non-emitting thermal energy system ratepayers.

45 (c) The department shall not approve a rate design that allows gas companies to recover  
46 the costs of line or main extensions to connect new customers to the gas distribution system. A  
47 customer requesting new gas service must pay the full capital cost of any such line or main  
48 extension.

49 SECTION 8. Section 145 of said chapter 164 is hereby amended by inserting at the end  
50 of subsection (f) the following sentence:-

51           “The percentage of a gas company’s revenue requirement eligible for recovery that a gas  
52 company spends on projects to replace gas infrastructure shall decrease each year by an amount  
53 determined by the department until, not later than 2035, 100 percent of the revenue requirement  
54 eligible for recovery by a gas company is spent on repair or retirement of gas infrastructure and  
55 on installation of utility-scale non-emitting thermal energy projects and 0 percent of the revenue  
56 requirement of such company is spent of the replacement of gas infrastructure.”

57           SECTION 9. Said chapter 164, as amended by chapter 239 of the acts of 2024, is hereby  
58 amended by inserting at the end thereof the following five sections:-

59           Section 152. (a) As used in this section, the following words shall have the following  
60 meanings unless the context clearly requires otherwise:-

61           “Avoided costs”, for a set of buildings that is or will be connected to a utility-scale non-  
62 emitting thermal energy system, an estimate of the costs that an electric distribution company  
63 would have incurred to instead fully electrify the set of buildings’ energy needs by the current  
64 baseline means other than a utility-scale non-emitting thermal energy system.

65           (b) (1) A gas company and an electric distribution company that share service territory  
66 shall, not later than October 31 of each year, jointly file with the department a joint tactical  
67 thermal transition plan to: (i) reduce greenhouse gas emissions in their shared territory in  
68 compliance with the emissions limits and sublimits established in chapter 21N; (ii) promote  
69 affordability, including through the maximization of avoided costs and the avoidance of stranded  
70 assets; and (iii) promote the additional priorities of the department enumerated in section 1A of  
71 chapter 25.

72           (2) A tactical thermal transition plan shall cover the projected work to be performed by  
73 street segment over the next 5 years, including, but not limited to: (i) the gas infrastructure to be  
74 retired and replaced with utility-scale non-emitting thermal energy systems and the avoided costs  
75 resulting from each such installations of a utility-scale non-emitting thermal energy system; (ii)  
76 the gas infrastructure to be retired and replaced by other forms of non-emitting thermal energy,  
77 and the cost, for each street segment, to upgrade the electric system to meet the increased need  
78 for electricity to serve energy uses formerly served by gas; and (iii) the gas infrastructure to be  
79 upgraded or replaced with new gas infrastructure, including, but not limited to, aging or leak-  
80 prone gas infrastructure and projects addressing gas constraints, and the associated costs for each  
81 street segment. Such a plan shall also include: (i) for each subsequent 5-year period until 2050,  
82 the projected number of miles of gas pipe to be retired or replaced and the projected reduction in  
83 greenhouse gas emissions achieved during each 5-year period until 2050; (ii) a plan for the hire,  
84 retention, and training of an operations and maintenance workforce, in each relevant job  
85 classification and department, that is sufficient to fulfill the gas company’s obligation to provide  
86 safe and reliable gas or utility-scale non-emitting thermal energy service through 2050.

87           (3) In developing a tactical thermal transition plan, a gas company and an electric  
88 distribution company shall solicit recommendations, such as planning scenarios and modeling,  
89 from the Thermal Transition Advisory Council established in section 153, respond to  
90 information and document requests from such council and conduct technical conferences and a  
91 minimum of 2 stakeholder meetings to inform the public, appropriate state and federal agencies  
92 and companies engaged in the development and installation of energy efficiency measures,  
93 utility-scale non-emitting thermal energy systems, and other building electrification systems.

94 (c) A gas company and an electric distribution company that share territory shall submit  
95 their joint tactical thermal transition plan to the Thermal Transition Advisory Council not later  
96 than 150 days before such gas company and electric distribution company file such plan with the  
97 department; and provided further, that the Thermal Transition Advisory Council shall return such  
98 plan to such gas company and electric distribution company with recommendations not later than  
99 70 days before the companies file such plan with the department.

100 A gas company and an electric distribution company that share territory shall submit their  
101 joint tactical thermal transition plan, together with a demonstration of the Thermal Transition  
102 Advisory Council's review and recommendations, including, but not limited to, a list of each  
103 individual recommendation, the status of each recommendation, and an explanation of whether  
104 and why each recommendation was adopted, adopted as modified, or rejected, along with a  
105 statement of any unresolved issues, to the department in accordance with a schedule determined  
106 by the department. The department shall promptly consider such plan and shall provide an  
107 opportunity for interested parties to be heard in a public hearing. The department shall approve,  
108 approve with modifications, or reject such plan within 60 days of submittal. In order to be  
109 approved, a plan shall provide net benefits for customers and meet the criteria enumerated in  
110 subsection (b).

111 (d) The department shall establish and require performance-based rates related to the  
112 implementation of the tactical thermal transition plans described in subsections (b). Such  
113 performance-based rates shall prioritize the goals of: (i) reducing greenhouse gas emissions in  
114 compliance with the limits and sublimits established in chapter 21N; (ii) promoting affordability,  
115 including through the maximization of avoided costs and the avoidance of stranded assets; and

116 (iii) promoting the additional priorities of the department enumerated in section 1A of chapter  
117 25. In administering such performance-based rates, the department may deny cost recovery.

118 (e) Upon approval by the department of the installation of a utility-scale non-emitting  
119 thermal energy system by a gas company, the electric distribution company serving the territory  
120 in which the system will be installed shall determine the avoided costs. The electric distribution  
121 company shall recover from its ratepayers a portion, determined by the department, of the  
122 avoided costs and shall transfer not less than 70 percent of such recovered avoided costs to the  
123 relevant program administrator of the energy efficiency program established pursuant to section  
124 21 of chapter 25; provided, that the program administrator shall expend such funds on building  
125 retrofits and appliance replacements for customers that are connected to such utility-scale non-  
126 emitting thermal energy system; and provided further, that in expending such funds, the program  
127 administrator shall give priority to low- and moderate-income customers.

128 (g) To avoid duplicative infrastructure and stranded assets and to maintain affordability,  
129 if a gas company offers utility-scale non-emitting thermal energy to all customers on a street  
130 segment, the gas company shall be considered to have met the essential thermal energy service  
131 needs of all customers on such street segment.

132 (h) In any plan or other filing by a gas company that includes the installation of a utility-  
133 scale non-emitting thermal energy system or any other type of non-gas pipe alternative, the gas  
134 company shall include a plan to provide training and continued employment at pre-existing  
135 wages and benefits to workers employed by such gas company whose jobs would otherwise be  
136 affected by a transition from gas infrastructure to utility-scale non-emitting thermal energy  
137 infrastructure or other non-gas pipe alternatives.

138 (i) The department shall promulgate such regulations as are necessary to implement this  
139 section.

140 Section 153. (a) There shall be a Thermal Transition Advisory Council to consist of the  
141 executive director of the office of energy transformation, or a designee, who shall serve as chair;  
142 the commissioner of energy resources, or a designee; the attorney general, or a designee; the  
143 executive director of the Massachusetts clean energy technology center, or a designee; 12  
144 members to be appointed by the governor, 1 of whom shall be a representative of middle-income  
145 and low-income residential consumers, 1 of whom shall be a representative from a local agency  
146 administering the low-income weatherization assistance program, 1 of whom shall be a  
147 representative of the environmental advocacy community, 1 of whom shall be a representative of  
148 the thermal transition advocacy community, 1 of whom shall be a representative of an  
149 environmental justice community organization, 1 of whom shall be a representative of the energy  
150 efficiency industry, 1 of whom shall be a representative of the utility-scale non-emitting thermal  
151 energy industry, 1 of whom shall be a representative of the building electrification industry, 1 of  
152 whom shall be a representative of the thermal energy workforce, 1 of whom shall be a  
153 representative of the gas workforce, 1 of whom shall be a representative of municipal or regional  
154 interests, 1 of whom shall have technical and engineering expertise in utility-scale non-emitting  
155 thermal energy systems, 1 of whom shall be a representative of businesses, including large  
156 commercial and industrial end-use customers, and 1 member from each gas company and electric  
157 distribution company operating in the commonwealth, who shall serve as non-voting members.  
158 Members shall serve for terms of 5 years and may be reappointed.

159 (b) The council shall review and provide recommendations on tactical thermal transition  
160 plans developed pursuant to section 152. The council shall encourage least-cost investments in

161 the transition of gas distribution customers to sources of non-emitting thermal energy, with the  
162 goals of: (i) reducing greenhouse gas emissions in compliance with the limits and sublimits  
163 established in chapter 21N; (ii) promoting affordability, including through the maximization of  
164 avoided costs and the avoidance of stranded assets; and (iii) promoting the additional priorities of  
165 the department enumerated in section 1A of chapter 25.

166 (c) The council shall annually submit to the department a proposal regarding the level of  
167 funding required for the retention of expert consultants and reasonable administrative costs. The  
168 department shall approve such proposals either as submitted or as modified by the department.  
169 The department shall allocate funds sufficient for these purposes from the natural gas and electric  
170 energy efficiency funding authorized under section 19 of chapter 25; provided, however, that  
171 such allocation shall not exceed 1 per cent of such funding on an annual basis. The consultants  
172 retained under this section shall be experts in energy efficiency, utility-scale non-emitting  
173 thermal energy, building electrification, or energy finance, and shall be independent.

174 Section 154. (a) A city or town may, by vote of a majority of the city council or by vote  
175 of a majority of the select board, establish a clean energy utility: (i) that owns and installs, within  
176 the city or town, solar energy systems that qualify as class I net metering facilities, as defined in  
177 section 138, and energy storage system with nameplate capacities that are equal to or less than 25  
178 kilowatts, on private property with the permission of the private property owner, and that sells  
179 the electricity produced or stored by such systems to customers located on the same property as  
180 such systems; and (ii) that owns and installs, within the city or town, utility-scale non-emitting  
181 thermal energy systems, on public property or on private property with the permission of the  
182 private property owner, and sells the thermal energy produced by such systems to customers  
183 directly connected to such systems.

184 (b) The department, in consultation with the department of energy resources, shall require  
185 an electric distribution company to implement consolidated billing on solar energy systems and  
186 battery storage facilities installed pursuant to subsection (a). In implementing consolidated  
187 billing, an electric distribution company shall apply the net value of the bill credit directly to the  
188 account of a customer and shall remit directly to the city or town such portion of the payment  
189 allocated to such city or town. The net value of the bill credits an electric distribution company  
190 applies to an account of a customer may be calculated in a manner determined by the  
191 department.

192 (c) The department shall promulgate such regulations as are necessary to implement this  
193 section.

194 Section 155. To promote and facilitate the safe, efficient and affordable development of  
195 utility-scale non-emitting thermal energy systems throughout the commonwealth and to ensure  
196 that thermal energy is managed for the public trust, the department shall promulgate regulations  
197 governing the installation, construction, operation and maintenance of utility-scale non-emitting  
198 thermal energy systems, except those that are installed and operated wholly on private property.

199 Section 156. (a) As used in this section, the following words shall have the following  
200 meanings unless the context clearly requires otherwise:-

201 “Electrification project”, a method of providing a set of gas customers with suitable non-  
202 emitting thermal energy that does not involve utility-scale infrastructure. Such a method may  
203 include, but shall not be limited to, the replacement of gas appliances with electric appliances,  
204 energy efficiency measures, and demand flexibility measures to alter energy consumption.

205 (b) (1) On or before January 1, 2027, the department shall designate priority  
206 neighborhood electrification zones. In designating the such zones, the department shall consider  
207 factors that include, but are not limited to, the following: (i) the tactical thermal transition plans  
208 approved pursuant to section 152; (ii) the availability of supportive municipal government or  
209 community partners; (iii) the concentration of low- and moderate-income customers; and (iv) the  
210 concentration of projects to replace gas distribution pipes pursuant to section 145.

211 (2) The department shall coordinate with relevant agencies to identify non-ratepayer  
212 funding, such as state and federal funds, that may be used to implement electrification projects in  
213 priority neighborhood electrification zones.

214 (3) The department may direct a gas company and an electric distribution company, if  
215 appropriate, to obtain resources for an electrification project from other available programs,  
216 including, but not limited to, energy efficiency, low-income weatherization, gas system  
217 enhancement, and distributed generation.

218 (4) The department may update the priority neighborhood electrification zones as  
219 necessary.

220 (c) (1) On or before January 1, 2027, in a new or existing proceeding, the department, in  
221 consultation with gas companies and electric distribution companies, shall establish a program to  
222 facilitate the cost-effective decarbonization of priority neighborhood electrification zones  
223 through electrification projects.

224 (2) In administering such projects, the department shall establish all of the following: (i) a  
225 process for a gas company to determine and submit electrification projects for approval by the  
226 department; (ii) criteria and methodology for determining the cost-effectiveness of electrification

227 projects as compared to replacement, repair, or continued operation of the affected asset of the  
228 gas system; provided, that nonenergy benefits may be considered; and provided further, that the  
229 cost incurred by a gas company for the electrification project shall be less than the cost that  
230 would have been incurred had a gas pipe been replaced; (iii) requirements and programs to  
231 ensure that a substitute for gas service for low-income customers is affordable, adequate,  
232 efficient, and just and reasonable; (iv) a preference for projects that provide prevailing wages; (v)  
233 a requirement that a gas company recover costs related to a project that are deemed just and  
234 reasonable and a requirement that prohibits a gas company from recovering behind-the-meter  
235 costs associated with a project as capital costs that are afforded a rate of return; and (vi) the  
236 appropriate rate of return and recovery period that a gas company is eligible to receive for its  
237 costs to implement an electrification project; provided, that a gas company shall not receive  
238 ratepayer funding for the costs of an electrification project that are covered by incentives under  
239 federal, state, or local laws.

240 (3) To avoid duplicative infrastructure and stranded assets and to maintain affordability,  
241 if a gas company implements an electrification project pursuant to subsection (c) and offers  
242 suitable substitute energy service to all customers in the priority neighborhood electrification  
243 zone, the gas company shall be considered to have met the essential thermal energy service needs  
244 of all customers within such priority neighborhood electrification zone.

245 (d) (1) Beginning on January 1, 2030, the department, in a new or existing proceeding,  
246 shall review the efficacy of the electrification projects established pursuant to subsection (c) in  
247 providing benefits to customers of a gas company and in assisting the commonwealth in  
248 achieving compliance with the statewide greenhouse gas emission limits and sublimits

249 established under chapter 21N. On or before March 1, 2031, the department shall submit to the  
250 relevant committees of the general court a report on the review.

251 (2) On or before March 1, 2027, and on or before March 1 of each year thereafter, the  
252 department shall submit a progress report to the relevant committees of the general court  
253 summarizing the findings of the electrification projects, including the locations of the projects,  
254 the number of customers affected, the costs of the projects, the funding used to pay for the  
255 projects, any assistance provided to customers, and any outcomes, challenges, and  
256 recommendations.