HOUSE DOCKET, NO. 2809 FILED ON: 1/19/2023

HOUSE . . . . . No. 2938

The Commonwealth of Massachusetts

PRESENTED BY:

Jeffrey N. Roy

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 advancing renewable heating solutions for the Commonwealth.

PETITION OF:

NAME:	DISTRICT/ADDRESS:	DATE ADDED:
Jeffrey N. Roy	*10th Norfolk*	*1/19/2023*

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HOUSE . . . . . No. 2938

By Representative Roy of Franklin, a petition (accompanied by bill, House, No. 2938) of Jeffrey N. Roy relative to renewable heating programs and providing for certain tax credits. Revenue.

The Commonwealth of Massachusetts

In the One Hundred and Ninety-Third General Court
(2023-2024)

An Act advancing renewable heating solutions for the Commonwealth.

Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:

SECTION 1. Section 3 of chapter 25 of the General Laws, as so appearing, is hereby amended by striking out, in line 14, the words "chapter 164" and inserting in place thereof the following words:- chapters 164 and 164C.

SECTION 2. Chapter 29 of the General Laws is hereby amended by inserting after section 2OOOOO, as inserted by section 13 of chapter 358 of the acts of 2020, the following section:-

Section 2PPPPP. (a) There is hereby established and set up on the books of the commonwealth a fund known as the Renewable Heating Solutions Development Fund to be administered by the department of energy resources. The purpose of the fund shall be reduce the carbon intensity of the fuel consumed by end-use customers and increase the supply of renewable thermal resources through procurement of qualified renewable heating fuels and useful thermal energy from renewable thermal resources including environmental attributes for compliance use by obligated entities, as defined in section 1 of chapter 164C and consistent with

Section 3A of Chapter 21N. There shall be credited to the fund all alternative compliance payments made by obligated entities as provided in section 2 of said chapter 164C. Amounts credited to the fund shall be expended without further appropriation. Money remaining in the fund at the end of a fiscal year shall not revert to the General Fund and shall be available for expenditure in subsequent fiscal years. No expenditure shall be made from said fund that shall cause said fund to be in deficit at the close of a fiscal year.

(b) Money in the fund shall be expended to: (i) stimulate investment in development of qualified renewable heating fuels and renewable thermal resources by entering into agreements, including multi-year agreements, for qualified renewable heating fuels and for renewable thermal resources including environmental attributes for the purposes of compliance with the renewable heat standard; (ii) provide technical and financial assistance for interconnection and feasibility studies, the development or the installation of qualified renewable heating fuel and renewable thermal resource projects; (iii) issue assurances or guarantees to support the acquisition of environmental attributes; (iv) establish escrows, reserves or acquire insurance for the obligations of the fund; and (v) pay administrative costs of the fund incurred not to exceed 10 per cent of the income of the fund, including, but not limited to, alternative compliance payments.

(c) The department shall adopt plans and guidelines for the management and use of the fund and enter into agreements with obligated entities to accept alternative compliance payments consistent with rules or purposes of the renewable heating standards established in said section 2 of said chapter 164C. The department shall pursue opportunities at the state or federal level to advance the research and development of eligible resources, as defined in section 1 of said chapter 164C.

SECTION 3. Section 6 of chapter 62 of the General Laws, as amended by section 57 of chapter 358 of the acts of 2020, is hereby amended by adding the following 3 subsections:-

(x) (1) A partnership, limited liability corporation or other legal entity engaged in business in the commonwealth that: (i) is not a business corporation subject to the excise under chapter 63; and (ii) produces qualified renewable heating fuels, as defined in section 1 of chapter 164C, shall be allowed a refundable credit against its excise due under this chapter.

(2) The credit under this subsection shall be attributed on a pro rata basis to the owners, partners or members of the legal entity entitled to the credit under this subsection and shall be allowed as a credit against the tax due under this chapter from the owners, partners or members in a manner determined by the commissioner.

(3) The commissioner, in consultation with the commissioner of energy resources, shall promulgate regulations for the administration and implementation of this subsection.

(y) (1) As used in this subsection the following terms shall, unless the context clearly requires otherwise, have the following meanings:

"Geothermal district heating", as defined in section 1 of chapter 164C.

"Qualified heating equipment", renewable heating systems approved by the department of energy resources, including but not limited to air source heat pumps, ground source heat pumps, and heating equipment using renewable hydrogen and renewable propane.

"Renewable hydrogen," as defined in section 1 of Chapter 164C.

"Taxpayer", a taxpayer subject to taxation under this chapter.

(2) A taxpayer shall be allowed a tax credit against the taxes imposed by this chapter equal to 30 per cent of the total qualified expenditures incurred in connection with the purchase and installation of qualified heating equipment during the taxable year; provided, however, that the amount of credit allowed shall not exceed 30 per cent of the net expenditure for renewable energy source property.

(3) If the amount of the credit allowed under this subsection exceeds the taxpayer's tax liability, the commissioner shall treat the excess as an overpayment and shall pay the taxpayer the entire amount of the excess.

(4) The commissioner, in consultation with the commissioner of energy resources, shall promulgate regulations for the administration and implementation of this subsection.

(z) (1) As used in this subsection the following terms shall, unless the context clearly requires otherwise, have the following meanings:

(2) A taxpayer shall be allowed a tax credit against the taxes imposed by this chapter equal to 30 per cent of the total qualified expenditures incurred in connection with the purchase and installation of geothermal district heating infrastructure during the taxable year.

(3) If the amount of the credit allowed under this subsection exceeds the taxpayer's tax liability, the commissioner shall treat the excess as an overpayment and shall pay the taxpayer the entire amount of the excess.

(4) The commissioner, in consultation with the commissioner of energy resources, shall promulgate regulations for the administration and implementation of this subsection.

SECTION 4. Chapter 63 of the General Laws is hereby amended by inserting after section 38HH, as appearing in the 2018 Official Edition, the following 3 sections:-

Section 39II. There is hereby established a qualified renewable heating fuels production tax credit. A corporation engaged in business in the commonwealth that produces qualified renewable heating fuels, as defined in section 1 of chapter 164C, shall be allowed a refundable credit against its excise due under this chapter. The credit shall be equal to 30 per cent of the total qualified expenditures incurred in connection with the purchase and installation of equipment for the production of qualified renewable heating fuels.

The credit allowed under this section shall be allowed for the taxable year in which the production of qualified renewable heating fuels or purchase of equipment to produce qualified renewable heating fuels is made. The commissioner, in consultation with the commissioner of energy resources, shall promulgate regulations for the administration and implementation of this section.

Section 39JJ. There is hereby established a renewable heating systems tax credit. A corporation engaged in business in the commonwealth that purchases or installs qualified heating equipment, as defined in paragraph (1) of subsection (y) of section 6 of chapter 62, shall be allowed a refundable credit against its excise due under this chapter equal to 30 per cent of the total qualified expenditures incurred in connection with said purchase and installation during the taxable year; provided, however, that the amount of credit allowed shall not exceed 30 per cent of the net expenditure for renewable energy source property.

The credit allowed under this section shall be allowed for the taxable year in which the purchase or installation of qualified heating equipment is made. The commissioner, in

consultation with the commissioner of energy resources, shall promulgate regulations for the administration and implementation of this section.

Section 39KK. There is hereby established a geothermal district heating infrastructure tax credit. A corporation engaged in business in the commonwealth that purchases or installs infrastructure supporting geothermal district heating, as defined in section 1 of chapter 164C, shall be allowed a refundable credit against its excise due under this chapter equal to 30 per cent of the total qualified expenditures incurred in connection with said purchase and installation during the taxable year.

The credit allowed under this section shall be allowed for the taxable year in which the purchase or installation of qualified heating equipment is made. The commissioner, in consultation with the commissioner of energy resources, shall promulgate regulations for the administration and implementation of this section.

SECTION 5. The General Laws are hereby amended by inserting after chapter 164B the following chapter:-

Chapter 164C

Renewable Heating Solutions

Section 1. As used in this chapter the following terms shall, unless the context clearly requires otherwise, have the following meanings:

"Alternative compliance payment", a payment to the renewable heating solutions development fund established in section 2PPPPP of chapter 29, which may be made in lieu of standard means of compliance with this statute.

“Biogas”, a mixture of carbon dioxide and hydrocarbons, primarily methane gas, released from the biological decomposition of organic materials, which can be upgraded to meet the standards for injection into a common carrier pipeline.

“Biomass”, energy feedstocks that can be converted or upgraded to meet the standards for injection into a common carrier pipeline, including brush; stumps; lumber ends and trimmings; wood pallets; bark; wood chips; shavings; slash and other clean wood; agricultural waste; food and vegetative material; energy crops; landfill methane; or biogas.

"Commission", the commonwealth utilities commission established in section 2 of chapter 25.

“Carbon intensity” means the quantity of full lifecycle greenhouse gas emissions per unit of fuel energy.

"Compliance year", a calendar year beginning January 1 and ending December 31 for which an obligated entity must demonstrate that it has met the requirements of this chapter.

“Department”, the department of energy resources.

“District heating”, systems that (i) provide useful thermal energy to multiple buildings from a central resource; (ii) distribute useful thermal energy among buildings connected to a common thermal network; or (iii) both provide and distribute useful thermal energy.

“Eligible resources”, resources producing qualified renewable heating fuels or useful thermal energy from a renewable thermal resource where the energy produced by the resource is: (i) delivered into the commonwealth for use by the commonwealth’s end-use customers; or (ii) used to provide heating service to customers in the commonwealth. Delivery of energy from an

eligible resource may include: (1) a unit-specific bilateral contract for the sale and delivery of the energy into the commonwealth; (2) confirmation from the appropriate control entity that the renewable energy was actually settled in the system; or (3) any other requirements as the department deems appropriate.

"Environmental attributes", any credits, emissions reductions, offsets, allowances or other benefits attributable to the production and delivery of qualified renewable heating fuels or renewable thermal resources. The attributes for qualified renewable heating fuels shall include, but are not limited to, the avoided greenhouse gas emissions associated with the production, transport, and combustion of a quantity of alternative fuels compared with the same quantity of geologic natural gas.

"Full life cycle greenhouse gas emissions", (1) lifecycle greenhouse gas emissions pursuant to section 7545(o)(1)(H) of title 42 of the United States code, and (2) include any associated abatement of greenhouse gases including methane.

"Geothermal district heating", the utilization of useful thermal energy generated and stored in the earth to provide heat to buildings and industry through a distribution network.

"Natural gas utility", a natural gas local distribution company.

"Obligated entity", a person or entity that sells natural gas to end-use customers.

"Qualified investment", any capital investment in gas delivery infrastructure or renewable thermal infrastructure incurred by a natural gas utility for the purpose of providing natural gas service or useful thermal energy from a renewable thermal resource while complying with the renewable heating standard. Qualified investments include costs of procurement of

qualified renewable heating fuels or useful thermal energy from a renewable thermal resource from third parties that contribute to the obligated entity meeting the targets set forth in this chapter. Qualified investments for qualified renewable heating fuels also include (i) a facility or any part of the equipment located at a facility that is used to create, gather and process biogas into renewable natural gas; inject renewable natural gas into an existing natural gas pipeline; or determine the constituents of renewable natural gas before the injection of the renewable natural gas into an existing natural gas pipeline; or (ii) a facility or part of equipment located at a facility that is used to create, gather, methanate or inject renewable hydrogen into an existing natural gas pipeline.

"Qualified renewable heating fuels", renewable natural gas, renewable hydrogen, and renewable propane.

"Renewable heating standard" or "standard", the required percentage reduction in carbon intensity described in subsection (a) of section 2.

"Renewable hydrogen", hydrogen produced with electricity generated from renewable energy systems. Renewable energy systems include those that generate electric or thermal energy through the use of solar thermal, photovoltaics, wind, hydroelectric, geothermal electric, geothermal ground source heat, biogas produced by the anaerobic digestion or fermentation of biodegradable materials, tidal energy, wave energy, ocean thermal and fuel cells that do not utilize a fossil fuel resource.

"Renewable natural gas", pipeline quality gas derived from any combination of biogas, biomass, the methanation of hydrogen and waste carbon dioxide, or the thermal gasification of

sustainable feedstocks, where the use of the fuel results in lower lifecycle greenhouse gas emissions than geologic natural gas.

"Renewable propane" derived from any combination of the creation of renewable liquid fuels and biogases, plant materials, cellulosic and anerobic digestion processes, and future innovative blends or other recycled material processes, where the use of the fuel results in lower lifecycle greenhouse gas emissions than geologic propane.

"Renewable thermal district heating", district heating relying primarily on useful thermal energy from a renewable thermal resource.

"Renewable thermal infrastructure", infrastructure for the conversion or distribution of thermal energy from a renewable thermal resource.

"Renewable thermal resource", any facility that generates useful thermal energy using: (i) naturally occurring temperature differences in ground, air or water, via geothermal ground loop, ambient water loop, air source heat pump or other technology; (ii) excess thermal energy, also referred to as waste heat, from building energy systems or commercial processes; (iii) sunlight; (iv) combined heat and power; or (v) energy efficient steam technology.

"Useful thermal energy", (i) energy in the form of direct heat, steam, hot water or another thermal form that is used in production for which fuel or electricity would otherwise be consumed; and (ii) beneficial measures for heating, cooling, humidity control, process use or other valid thermal end use energy requirements for which fuel or electricity would otherwise be consumed.

Section 2. (a) Beginning in compliance year 2027, each obligated entity shall reduce the carbon intensity of gas delivered or transported annually by the obligated entity in the Commonwealth by at least 2 per cent. Beginning in compliance year 2030, each obligated entity shall reduce the carbon intensity of gas delivered or transported annually by the obligated entity in the Commonwealth by at least 7.5 per cent. Beginning in compliance year 2035, each obligated entity shall reduce the carbon intensity of gas delivered or transported annually by the obligated entity in the Commonwealth by at least 20 per cent, continuing thereafter.

(b) If the department determines that achievement of the renewable heating standards has adversely impacted the affordability of gas LDC customer bills, the department may temporarily suspend compliance for the next compliance year immediately following the determination.

(c) The department shall review whether adjustments to the renewable heating standards for the following 2 compliance years are necessary to ensure that the increase in customer bills remains affordable. This review shall assess the total incremental annual cost to meet the renewable heating standards, including accounting for (i) any value received by a natural gas utility upon any resale of eligible resources, such as any environmental credits or other credits associated with environmental attributes; and (ii) any savings achieved through avoidance of conventional gas purchases or development, such as avoided pipeline costs or carbon costs.

(d) The department may adjust prospective compliance year targets described in subsection (a); provided, however, that the cumulative annual percentage of natural gas sold shall comply with the 2035 target.

(e) If the department determines that there are not enough eligible resources to meet the targets identified in subsection (a) within the constraints of subsections (b) to (d), inclusive, the

department may recommend natural gas utilities develop qualified investments sufficient to meet the targets.

(f) The department shall ensure that the reductions in carbon intensity in subsection (a) are consistent with Section 3A of Chapter 21N.

Section 3. (a) Compliance of an obligated entity with the renewable heating standard may be demonstrated through: (i) sale of qualified renewable heating fuels or useful thermal energy from a renewable thermal resource and their associated environmental attributes to customers in Massachusetts; (ii) procurement of environmental attributes by obligated entities representing qualified GHG emissions reductions in a system of record designated by the department (iii) payment of alternative compliance payments to the renewable heating solutions development fund established in section 2PPPPP of chapter 29; or (iv) any combination of qualified renewable heating fuel procurement, renewable thermal resource procurement, environmental attribute procurement, or alternative compliance payments.. The commissioner shall promulgate rules and regulations for the payment of alternative compliance payments.

(b) To procure environmental attributes an obligated entity's production source shall be certified by the department as using eligible resources. Use of eligible resources shall be evidenced by reports issued by the commissioner of energy resources.

(c) In meeting the obligations of the renewable heating standards, to the extent feasible and consistent with state and federal law, all investments, projects and activities undertaken pursuant to this chapter by any person or the department shall provide employment opportunities for all segments of the population and workforce, including minority-owned and female-owned business enterprises, and utilize labor and materials within the commonwealth to ensure the

environmental benefits of avoided carbon emissions are not diminished by emissions associated with the transportation of labor or materials. The investments, projects and activities shall not discriminate based on race or socioeconomic status.

(d) The commissioner of energy resources shall promulgate rules and regulations for the implementation of the renewable heating standards on or before July 1, 2025. The rules and regulations shall include, but be limited to, provisions for:

(i) verification of eligibility and production of eligible resources, as well as the energy content of qualified renewable heating fuels and useful thermal energy from a renewable thermal resource, including requirements to notify the department in the event of a change in status, monitor qualified facilities to ensure annual average energy content matches the expected generation of environmental attributes;

(ii) certification of eligible resources by issuing statements of qualification within 90 days of application, including prospective reviews for applicants seeking to determine whether a facility would be eligible;

(iii) annual compliance filings to be made by all obligated entities within 1 month after tracking system data is available for the fourth quarter of each calendar year; provided, that all obligated entities shall cooperate with the department in providing data necessary to assess the magnitude of obligation and verify the compliance of all obligated entities;

(iv) sanctions for obligated entities that, after investigation, have been found to fail to reasonably comply with the renewable heating standards or department rules and regulations; provided, that no sanction or penalty shall relieve or diminish an obligated entity from liability for fulfilling any shortfall in its compliance obligation; provided further, that no sanction shall be

imposed if compliance is achieved through alternative compliance payments; provided further, that the department may suspend or revoke the certification of eligible resources that provide false information or fail to notify the department in the event of a change in eligibility status or otherwise comply with department rules; and provided further, that financial penalties resulting from sanctions from obligated entities shall not be recoverable in rates;

(v) mechanisms for the purposes of easing compliance burdens, facilitating bringing new eligible resources on-line and avoiding or mitigating conflicts with state-level source disclosure requirements and green marketing claims throughout the region; provided, that mechanisms shall allow obligated entities to demonstrate compliance over a compliance year and bank excess compliance for 2 subsequent compliance years, capped at 20 per cent of the current year's obligation; and

(vi) public reporting on the status of the implementation of standards, including the comparative use of environmental attributes and alternative compliance payments and the amount of rate increases authorized by the standards.

Section 4. The commission shall adopt regulations authorizing cost recovery by natural gas local distribution companies of all prudent incremental costs arising from the implementation of the renewable heating standards, including, without limitation: (i) the purchase of qualified renewable heating fuels or useful thermal energy from renewable thermal resources or environmental attributes or the payment of alternative compliance payments; (ii) required payments to support assessments for compliance purposes; (iii) the incremental costs of complying with energy source disclosure requirements; (iv) qualified infrastructure investments or other activities that will grow the supply and utilization of qualified renewable heating fuels

and useful thermal energy from renewable thermal resources and provide environmental benefits to the commonwealth, including approval of investment in conditioning, injection and distribution infrastructure, such as extending the transmission or distribution system for the purpose of interconnection with a qualified facility; (v) making a financial investment for the purposes of interconnecting a qualified facility or otherwise ensuring that gas created by the facility can be delivered to customers in accordance with statutory requirements for injection, compression, quality, and safety or other department or federal regulatory requirements; (vi) participating in a state or federal renewable energy program or project, if participation by the natural gas local distribution company (1) consists of the purchase or sale of gas produced or environmental attributes and (2) results in a reduction of the cost of gas produced to the company's customers; (vii) providing customers with the option to purchase gas produced from a qualified investment, with or without environmental attributes, directly from the natural gas local distribution company; (viii) any other activity that develops qualified renewable heating fuel sources or renewable thermal resources, advances the sale of qualified renewable heating fuel sources or renewable thermal resources, or promotes the diversification in energy supply within the commonwealth to advance the commonwealth's environmental or climate goals; and (ix) geothermal district heating investments. Costs may be recovered by means of an automatic adjustment clause or any other recovery mechanism authorized by rule. Costs incurred from clause ix may be recovered from customers receiving heating and cooling services as a result of said investment, or from gas delivery customers, until such time as a class of geothermal district heating customers can be established by the commission. Once a class of geothermal district heating customers has been established, the commission shall investigate the appropriate cost

allocation and recovery of any geothermal district heating investments made prior to the establishment of the class.

Section 5. The department shall conduct a qualified renewable heating fuels inventory, which shall include:

(i) a list of the existing eligible resources, including the location, an estimate of lifecycle greenhouse gas emissions and an assessment of supply chain infrastructure associated with each eligible resource;

(ii) a list of the potential qualified renewable heating fuel sources, including the estimated potential production quantities and energy content of sources;

(iii) discussion of the best use or uses for potential qualified renewable heating fuel sources, taking into account estimated lifecycle greenhouse gas emissions, costs and whether the potential source can be used to address local gas or electric constraints; and

(iv) a description of the technologies available for use at each potential qualified renewable heating fuel source, including estimates from qualified renewable heating fuel sources, small renewable energy generating facilities, as defined in section 143 of chapter 164, renewable energy facilities that would be otherwise curtailed, or renewable energy generating sources, as defined in subsection (b) of section 11F of chapter 25A,

Section 6. The department shall research and determine gas quality standards for the injection of renewable natural gas, renewable hydrogen and any other resources qualifying for the renewable heating standards into the common carrier pipeline system. The purpose of the standards shall be to identify acceptable levels of constituents of concern for safety and

environmental purposes, including ensuring pipeline integrity, while providing reasonable and predictable access to pipeline transmission and distribution facilities. The department shall consult industry groups and neighboring jurisdictions, and identify industry best practices in establishing the standards.

Section 7. The department may review and approve siting of renewable hydrogen production and delivery facilities and infrastructure.

SECTION 6. The credit established in subsection (y) of section 6 of chapter 62 shall be available in tax years 2024, 2025, 2026, 2027, and 2028.

SECTION 7. The gas quality standards established in section 6 of chapter 164C shall take effect not later than July 1, 2025.