

An Ordinance Relating to Building and Building Construction

Regulation of Heating and Service Water Heating Systems in new buildings



Adopted November 7, 2022

It is hereby Ordained by the City Council of the City of South Burlington as follows:

HEATING AND SERVICE WATER HEATING SYSTEMS

I. Purpose and Authority

- (a) Purpose. It is in the public interest and in the interest of public health and safety to achieve a high degree of conservation of energy and, where possible, reduce emissions of greenhouse gasses by requiring buildings to meet specified energy efficiency performance standards and maximum allowable heat loss standards.
- (b) Authority. All provisions in this article relating to heating systems and service water heating systems are adopted pursuant to the authority and powers granted by the Vermont Legislature in 24 V.S.A. Chapter 83 (Building Inspectors and Regulation of Building: Bylaws and ordinances; penalties), as reasonably necessary to improve the health, safety, and welfare of the public from fuel leaks and explosions, and from air pollution, including that which is causing climate change and thereby threatens the city and its inhabitants.

II. Definitions

- (a) A “renewable primary heating system” shall mean a heating system that meets at least eighty-five percent (85%) of the building’s design heating load calculated for commercial buildings per the Vermont Commercial Building Energy Standards (CBES) energy code (Section C403.1), for residential buildings per the Vermont Residential Building Energy Standards (RBES) energy code (Section 2.4c), for mixed-use buildings per the CBES and RBES, and for multi-family buildings per the RBES or Vermont Multi-Family Building Energy Standards (if implemented and applicable)(MFBES) and is fueled by:
 - i. Electricity (with exception of electric resistance units prohibited by the Vermont Commercial Energy Standards (CBES) energy code (Section C403.2.3); or
 - ii. Wood pellets or woodchips; or
 - iii. Other renewable fuel used by conventional primary heating systems, including renewable gas, biodiesel, and renewable district heating, if the building owner provides a contract demonstrating that the fuel required by the conventional primary heating system is fully sourced from such other renewable fuels for the life of that conventional heating system. “Renewable gas” shall mean methane produced by the organic material and sourced from landfills, wastewater treatment facilities, and farms as offered under a tariff or supply contract from a utility such as Vermont Gas Systems.
- (b) A “renewable service water heating system” shall mean a service water heating system as defined by the CBES for commercial buildings, by the RBES for residential buildings, by the CBES and RBES for mixed-use buildings (as applicable), and by the RBES or MFBES for multi-family buildings (if implemented and applicable) and is fueled by:
 - i. Electricity, provided that:
 - 1. The requirements of Section C404 and minimum efficiency requirements of Table C404.2 of the CBES are satisfied for commercial buildings; and
 - 2. the circulation loop requirements of the RBES and efficiency requirements set by the U.S. Department of Energy are satisfied for residential buildings;

or

- ii. Wood pellets or woodchips; or
 - iii. Solar thermal energy; or
 - iv. Other renewable fuel used by conventional water heating systems, including renewable gas, biodiesel, and renewable district heating, if the building owner provides a contract demonstrating that the fuel required by the conventional primary water heating system is fully sourced from such other renewable fuels for the life of that conventional water heating system. "Renewable gas" shall mean methane produced by the organic material and sourced from landfills, wastewater treatment facilities, and farms as offered under a tariff or supply contract from a utility such as Vermont Gas Systems.
- (c) A "non-primary heating system" shall include back-up heating system or ventilation/air tempering system.
- (d) "New Building" shall mean all new construction of residential, commercial, or industrial buildings with a heating source and/or service water heating source where either:
- i. a complete application package for a construction permit submitted pursuant to the City of South Burlington Fire Prevention and Safety Ordinance is stamped received by the City of South Burlington Fire Marshal on or after February 15, 2023; or
 - ii. for owner-occupied single family residential buildings only, a complete zoning permit application submitted pursuant to the City of South Burlington Land Development Regulations is received by the City of South Burlington Department of Planning and Zoning on or after February 15, 2023.
- (e) A "residential building" shall be as defined by the RBES.
- (f) A "commercial building" shall be as defined by the CBES.
- (g) A "mixed-use building" shall be as defined by the CBES.
- (h) A "multi-family building" shall be as defined by the CBES unless and until the MFBES is implemented and is applicable, at which point the MFBES definition shall apply.

III. Applicability

All New Buildings shall utilize a Renewable Primary Heating System and a Renewable Service Water Heating System. Non-Primary Heating Systems that use non-renewable fuels may also be installed and utilized.

IV. Waiver

The Building Inspector may issue a Certificate of Compliance where an applicant certifies that a waiver to the requirements of Section III of this Ordinance is warranted on the grounds that utilizing a renewable primary heating system or a renewable service water heating system in a new building would be uneconomical. To be deemed uneconomical, the 25-year capital and operational cost of the least expensive renewable primary heating system or renewable service water heating system, including any available incentives from their Utility Provider, Efficiency Vermont, or other state or federal entities, must be more than the 25-year capital and operational costs of a non-renewable primary heating system or non-renewable service water heating system, including the cost of externalities calculated by a building carbon price of \$100 per ton for the life of the non-renewable primary heating system or non-renewable service water heating system. The building carbon price of \$100 per ton shall be annually adjusted by the program

administrator equivalent to 100% of the annual change in the Consumer Price Index For All Urban Consumers (CPI-U) in the Northeast Region, to go into effect January 1 of every ensuing year.

Renewable service water heating system two-year waiver period for Multi-Family Residential and Commercial/Industrial New Buildings. Beginning on February 15, 2023 and ending on February 14, 2025, applicants who certify that their New Building is a multi-family building as defined by the CBES, a mixed-use multi-family building as defined by the CBES, or a commercial/industrial building defined by the CBES shall be exempt from the Renewable Service Water Heating System requirements of Section III. All other requirements of Section III shall remain applicable. Upon receipt of such Certification, the Building Inspector shall issue a Certificate of Compliance provided all other requirements of Section III and this Ordinance are met. Following the expiration of this two (2) year waiver period from the renewable service water heating system requirements, all new residential, commercial, and industrial construction for which a complete application for a construction permit is stamped received by the City of South Burlington Fire Marshal on or after February 15, 2025, shall comply with all requirements of this Ordinance.

V. Appointment of a Building Inspector

Upon the recommendation of the City Manager, the South Burlington City Council shall appoint a Building Inspector who shall be a disinterested and competent person with experience in the construction of various types of buildings.

VI. Powers and Duties of the Building Inspector

The Building Inspector shall have all powers necessary to ensure compliance with this Ordinance, including, but not limited to, receiving Applications, collecting Certifications, and issuing Certificates of Compliance, and shall report on such actions to the Fire Marshal and Director of Planning and Zoning.

VII. Revocation of Appointment

Upon the recommendation of the City Manager, the South Burlington City Council may remove the Appointed Building Inspector, at any time.

VIII. Application; Certificate of Compliance; Condition Precedent

- (a) Application. For all New Buildings, an Application (“Application”) for a Certificate of Compliance with the requirements of this Ordinance shall be submitted to the Building Inspector. The Building Inspector will develop and make available to the public an application form that shall be utilized by any applicant.
- (b) Certificate of Compliance. The Building Inspector shall issue a Certificate of Compliance upon receipt of an Application and a complete Certification submitted in accordance with Section IX, below.
- (c) Condition Precedent. Issuance of a Certificate of Compliance by the Building Inspector shall be a condition precedent to:
 - i. Occupancy of a New Building
 - ii. If applicable, issuance by the City of South Burlington Fire Marshal acting under 20 V.S.A. §2736 of any final occupancy/construction permit for a New Building in accordance with the City of South Burlington Fire Prevention and Safety Ordinance.

- iii. If applicable, issuance by the City of South Burlington Zoning Administrator of a certificate of occupancy for a New Building in accordance with the City of South Burlington Land Development Regulations.

IX. Certification

- (a) For all New Buildings, a certification (“Certification”) shall be submitted to the Building Inspector that either:
 - 1) certifies that the New Building meets the requirements of this Ordinance; or
 - 2) certifies that the New Building is entitled to a waiver in accordance with the requirements of Section IV of this Ordinance.

A Certification may be completed by a builder, a licensed professional engineer, a licensed professional plumber, a licensed professional electrician, a licensed architect, or an accredited home energy rating organization. The Building Inspector will develop and make available to the public a certificate form that lists the key features of this Ordinance. Any person submitting a Certification shall use this certificate form to certify compliance with this Ordinance or certify waiver entitlement. To complete Certification, a copy of the completed Certification shall also be permanently affixed to the outside of the heating equipment and/or domestic water heater, to the electrical service panel located inside the building, or in a visible location in the vicinity of one of these three areas. A builder may contract with a licensed professional engineer, a licensed professional plumber, a licensed professional electrician, a licensed architect, or an accredited home energy rating organization to issue certification and to indemnify the builder from any liability to the owner of the New Building caused by noncompliance with this Ordinance. A Certification may be filed contemporaneously with the Application for a Certificate of Compliance.

- (b) All New Buildings shall always remain in compliance with their submitted Certification and this Ordinance. Following the submission of a Certification and receipt of a Certificate of Compliance, if the renewable primary heating system or renewable service water heating system in a New Building is replaced or a new fuel source is utilized, a new application must be submitted to the Building Inspector who will issue a new Certificate of Compliance upon receipt of a complete application and Certification.

X. Enforcement

Any person who violates a provision of this Ordinance shall be subject to a civil penalty of up to \$800 per day for each day that such violation continues. Firefighters and police officers of the City of South Burlington shall be authorized to act as Issuing Municipal Officials to issue and pursue before the Judicial Bureau or other appropriate judicial body a municipal complaint. A municipal complaint may, at the discretion of the Issuing Municipal Official, be dismissed upon the successful completion of a restorative justice program before the South Burlington Community Justice Center.

XI. Civil Penalty; Waiver Fee

An issuing Municipal Official is authorized to recover civil penalties in the following amounts for each violation:

(a) Civil Penalties:

First Offense:	\$200
Second Offense:	\$400
Third Offense:	\$600
Forth and subsequent offenses	\$800

(b) Waiver Fees – An issuing Municipal Official is authorized to recover a waiver fee, in lieu of a civil penalty, in the following amount, for any person who declines to contest a municipal complaint and pays the waiver fee:

First Offense:	\$100
Second Offense:	\$200
Third Offense:	\$300
Forth and subsequent offenses	\$400

XII. Other Relief

In addition to the recovery of civil penalties provided for above, the City may seek to enforce this Ordinance by an appropriate action for injunctive relief. Further, nothing herein shall be construed to limit other rights, remedies, or penalties available by law, including under Chapter 83 of Title 24, V.S.A.

XIII. Severability

If any portion of this Ordinance is held to be invalid by a court of competent jurisdiction, such finding shall not invalidate any other part of this Ordinance.