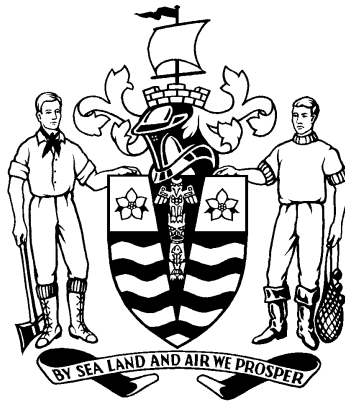


CITY OF VANCOUVER BRITISH COLUMBIA



ENERGY UTILITY SYSTEM BY-LAW NO. 9552

**This By-law is printed under and
by authority of the Council of
the City of Vancouver**

**(Consolidated for convenience only
to December 12, 2023)**

ENERGY UTILITY SYSTEM BY-LAW

TABLE OF CONTENTS

SECTION 1 INTERPRETATION

- 1.1 Name of By-law
- 1.2 Definitions
- 1.3 Application of and conflict with other by-laws
- 1.4 Table of contents
- 1.5 Schedules
- 1.6 Severability

SECTION 2 APPLICATION OF BY-LAW

- 2.1 Compulsory use of energy utility system
- 2.2 Permissive use of energy utility system

SECTION 3 IMPLEMENTATION OF ENERGY UTILITY SYSTEM

- 3.1 Authorization for energy utility system
- 3.2 Construction of energy utility system
- 3.3 Ownership of energy utility system

SECTION 4 BUILDING PERMIT REQUIREMENTS FOR BUILDING MECHANICAL SYSTEM

- 4.1 Building permit application
- 4.2 Submission of copy of application
- 4.3 Approval of estimated maximum heat energy demand
- 4.4 Approval of locations
- 4.5 Approval of alternate locations
- 4.6 Approval of schedule
- 4.7 Design of building mechanical system
- 4.8 Approval of building permit
- 4.9 No work before permit issuance

**SECTION 5
DESIGN AND INSTALLATION OR ALTERATION
OF BUILDING MECHANICAL SYSTEM**

- 5.1 Integration with energy utility system
- 5.2 Prohibited components
- 5.3 Design and technical requirements
- 5.4 Installation of valves
- 5.5 Scheduling
- 5.6 City's scheduling
- 5.7 Approval of installation or alteration of work
- 5.8 Adjustment of increased installation costs
- 5.9 No occupancy permit

**SECTION 6
ENTRY ONTO REAL PROPERTY**

- 6.1 Entry with respect to energy utility system
- 6.2 Entry with respect to building mechanical system
- 6.3 Work on entry

**SECTION 7
OPERATION OF ENERGY UTILITY SYSTEM
AND BUILDING MECHANICAL SYSTEM**

- 7.1 Operation of energy utility system
- 7.2 No guarantee of service
- 7.3 Alteration, interruption, or cessation of service
- 7.4 Tampering with energy utility system
- 7.5 Operation of building mechanical system
- 7.6 Application for service
- 7.7 Meter test
- 7.8 Application for meter test
- 7.9 Conduct of meter test
- 7.10 Results of meter test
- 7.11 Adjustments for inaccurate meter
- 7.12 Adjustment for Tampering
- 7.13 Service calls
- 7.14 Changes to energy transfer station or distribution system extension
- 7.15 Cost of changes to energy transfer station or distribution system extension

**SECTION 8
LEVIES AND CHARGES AND OTHER COSTS**

- 8.1 Imposition of capacity levy
- 8.2 Imposition of connection levy
- 8.3 Imposition of energy charge
- 8.4 Billing for capacity levy or energy charge
- 8.5 Payment of levy or charge

- 8.6 Amount added for late payment
- 8.7 Insertion in tax roll
- 8.8 Adjustment for partial period
- 8.9 Variation in matters affecting levy
- 8.10 Calculation of city's costs

**SECTION 9
APPLICATIONS AND FEES**

- 9.1 Form of application
- 9.2 Fee for application
- 9.3 Returned cheques

**SECTION 10
OFFENCES AND PENALTIES AND ENFORCEMENT**

- 10.1 Termination of service
- 10.2 Notice of violation
- 10.3 Service of notice
- 10.4 Offences under By-law
- 10.5 Fine for offence
- 10.6 Fine for continuing offence

**SECTION 11
ENACTMENT**

- 11. Force and effect

SCHEDULES

- Schedule A - Boundaries of Service Area
- Schedule B - Standards for Treating Water in the Building Mechanical System
- Schedule C - Levies and Charges
- Schedule D - Meter Test Costs and Miscellaneous Fees

BY-LAW NO. 9552

A By-law to provide for the establishment and operation of an energy utility system

**(Consolidated for convenience only,
amended to include By-law No. 13869,
effective January 1, 2024)**

THE COUNCIL OF THE CITY OF VANCOUVER, in public meeting, enacts as follows:

SECTION 1 INTERPRETATION

Name of By-law

1.1 The name of this By-law, for citation, is the “Energy Utility System By-law”.

Definitions

1.2 In this By-law:

“applicant” means an applicant for a building permit under section 4.1;

“building” has the meaning ascribed to it by Sentence 1.4.1.2.(1) of Part 1 of Division A of the Building By-law, and includes a new building and an existing building described under subsections (a) and (b) of section 2.1;

“building mechanical system” includes the internal space heat energy and domestic hot water distribution system for a designated building;

“capacity levy” means:

- (a) for any residential or mixed use residential building located in Southeast False Creek where the first building permit for the building is applied for before July 1, 2023, a fixed capacity fee based on net floor area determined by the city at the time of issuance of the building permit for that building, and
- (b) for any residential or mixed use residential building located in Southeast False Creek where the first building permit for the building is applied for on or after July 1, 2023, a fixed capacity fee based on the greater of the estimated peak heat energy demand of the building approved by the City Engineer pursuant to section 4.3 of this By-law at the time of application for service, or the actual peak heat energy demand of the building determined by the city by reading the meter, and

- (c) for any residential or mixed use residential building not located in Southeast False Creek, and for any non-residential building, a fixed capacity fee based on the greater of the estimated peak heat energy demand of the building approved by the City Engineer pursuant to section 4.3 of this By-law at the time of application for service, or the actual peak heat energy demand of the building determined by the city by reading the meter;

“charge” means a variable consumption fee based on the amount of heat energy used in, and recorded at the meter or estimated by the Collector under this By-law for, a designated building;

“Chief Building Official” has the meaning ascribed to it by Sentence 1.4.1.2.(1) of Part 1 of Division A of the Building By-law;

“City Engineer” means the individual appointed by Council to be the General Manager of Engineering Services or a person duly authorized to carry out the powers and duties of the General Manager of Engineering Services;

“Collector” means the individual appointed by Council to be the Collector of Taxes or a person duly authorized to carry out the powers and duties of the Collector of Taxes;

“community energy centre” means an energy supply facility that provides heat energy in the form of hot water to designated buildings through the distribution system;

“connection levy” means a charge or levy imposed upon an owner to compensate the City for installing an initial connection to the energy utility system, including all the necessary and incidental infrastructure;

“designated building” means a building to which this By-law applies by virtue of section 2.1 or 2.2;

“distributed water-to-air heat pump system” means electricity driven refrigerant vapor compression cycle equipment installed as terminal units throughout the building and which extract thermal energy from a common water heat source and reject it into indoor air in heating mode, and extract thermal energy from indoor air and reject it into a common water heat sink in cooling mode;

“distribution system” means a thermal distribution network that links the community energy centre with the energy transfer station in each designated building, and that includes separate loops for the supply and return of heat energy in the form of hot water;

“distribution system extension” means that part of the distribution system that is situated on, over, under, or in a parcel of real property on which a designated building is situated or in a designated building;

“energy transfer station” means equipment owned by the city and used to meter, for billing purposes, the amount of energy consumed in a designated building, and to transfer heat energy from the distribution system to the building mechanical system in a designated

building, and includes pipes for the supply and return of hot water, valves, controls, meters, and separate heat exchangers for domestic hot water and space heating;

“energy utility system” means the energy utility system referred to in section 3.1, and consists collectively of the community energy centre, distribution system, and energy transfer station in each designated building, and all necessary appliances and equipment;

“entry points” mean two openings in an exterior wall of a designated building for the passage of the supply and return pipes connecting the distribution system extension and energy transfer station;

“existing building” has the meaning ascribed to it by Sentence 1.4.1.2.(1) of Part 1 of Division A of the Building By-law;

“heat energy” means heat distributed or delivered by water including space heating, domestic hot water, and heat for ventilation make-up air;

“meter” means a thermal energy meter at an energy transfer station consisting of a water flow meter, temperature sensors, and associated electronics used to measure and record the heat energy supplied to the designated building which houses the energy transfer station;

“owner” means a person who owns, occupies, or controls a parcel of real property, and includes a registered owner, an owner under agreement, an occupier of Crown land, a cooperative association incorporated or continued under the Cooperative Association Act of British Columbia, and a strata corporation established or continued under the Strata Property Act of British Columbia, and, if appropriate in the context of the By-law, refers to an owner in respect of which the real property so owned, occupied, or controlled includes a designated building;

“peak heat energy demand” means the maximum amount of heat energy, measured in kilowatts, required for a designated building, after completion of the installation or alteration of the building mechanical system, at any one point in time in a calendar year;

“points of delivery” mean the valves on the building side of the heat exchangers at an energy transfer station;

“registered professional” has the meaning ascribed to it by Sentence 1.4.1.2.(1) of Part 1 of Division A of the Building By-law;

“service” means the delivery by the city to a designated building of heat energy by way of the energy utility system;

“service area” means the area enclosed in bold black on Schedule A;

“Southeast False Creek” means the area bounded to the north by the False Creek waterfront and Terminal Avenue, to the west by Wylie Street and Cambie Bridge, to the south by 2nd Avenue, and to the east by Main Street to which the Southeast False Creek Official Development Plan applies; and

"water-source variable refrigerant flow (VRF) system" means central electricity driven heat pump units, which extract heat from or reject heat into a water source and provide heating and cooling to the building by circulating refrigerant to distributed refrigerant-to-air fan coils in multiple thermal zones.

Application of and conflict with other by-laws

1.3 The requirements of this By-law are in addition to the requirements of the Building By-law and Certification of Professionals By-law, except that, despite Sentence 1.5.1.2.(1) of the Building By-law, in case of conflict between the Building By-law or Certification of Professionals By-law and this By-law, this By-law is to prevail.

Table of contents

1.4 The table of contents for this By-law is for convenient reference only, and is not for use in interpreting or enforcing this By-law.

Schedules

1.5 Schedules attached to this By-law form part of this By-law.

Severability

1.6 A decision by a court that any part of this By-law is illegal, void, or unenforceable severs that part from this By-law, and is not to affect the balance of this By-law.

SECTION 2 APPLICATION OF BY-LAW

Compulsory use of energy utility system

2.1 Each owner in the service area of:

- (a) a new building proposed for construction or under construction for which the Building By-law requires submission of a building permit application and issuance of an occupancy permit to which the owner, as at the date of enactment of this By-law, is not yet entitled; or
- (b) an existing building where the estimated value of proposed alterations or alterations under construction which require submission under the Building By-law of a building permit application is more than the greater of \$95,000 or 100% of the building's latest assessed value according to the records of the British Columbia Assessment Authority;

must make use of the energy utility system in accordance with the terms and conditions of this By-law, unless the City Engineer is of the opinion that providing the service to a building is not practical or economical.

Permissive use of energy utility system

2.2 An owner outside the boundaries, but in the vicinity, of the service area may apply to the City Engineer to make use of the energy utility system, and if:

- (a) the City Engineer is of the opinion that the energy utility system is capable of servicing the building that is the subject of the application;
- (b) the City Engineer is of the opinion that servicing the building is necessary or desirable; and
- (c) the owner enters into an agreement with the city, in form and substance satisfactory to the City Engineer and Director of Legal Services, promising to make a cash contribution to the capital cost of extending the system outside the boundaries to the owner's property in an amount and at a time determined by the City Engineer;

the City Engineer may approve the application, in which case the owner must make use of the energy utility system in accordance with the terms and conditions of this By-law.

SECTION 3 IMPLEMENTATION OF ENERGY UTILITY SYSTEM

Authorization for energy utility system

3.1 Council authorizes the design, construction, installation, maintenance, repair, and management of an energy utility system for the generation, storage, transmission, and distribution of heat energy to supply the entire heat energy demand for each designated building.

Construction of energy utility system

3.2 Council authorizes the design, construction, and installation, according to the requirements of this By-law and scheduling determined from time to time by the City Engineer, of the:

- (a) community energy centres in locations approved by the City Engineer;
- (b) distribution system in streets in locations approved by the City Engineer;
- (c) data network in streets in locations approved by the City Engineer;
- (d) distribution system extensions in locations approved by the City Engineer under section 4.4 or 4.5; and
- (e) energy transfer stations in locations approved by the Chief Building Official and City Engineer under section 4.4 or 4.5.

Ownership of energy utility system

3.3 Ownership of the property comprising the energy utility system is to remain vested in the city,

and is not to pass to any owner, or other person who has an interest in a designated building, and, despite any attachment or annexation to a designated building, the distribution system extension and energy transfer station are not to become part of the real property.

SECTION 4 BUILDING PERMIT REQUIREMENTS FOR BUILDING MECHANICAL SYSTEM

Building permit application

4.1 A person who applies, under the Building By-law, for a permit that is to authorize the installation or alteration of a building mechanical system must include in, or submit with, the application:

- (a) an acknowledgment signed by the owner that the building is a designated building;
- (b) a certificate, signed by the registered professional who is responsible for design of the building mechanical system, estimating the:
 - (i) peak heat energy demand for space heating,
 - (ii) peak heat energy demand for domestic hot water,
 - (iii) combined peak heat energy demand for any uses other than space heating and domestic hot water,
 - (iv) annual average heat energy demand for space heating,
 - (v) annual average heat energy demand for domestic hot water, and
 - (vi) annual average heat energy demand for any uses other than space heating and domestic hot water;
- (c) a cheque in the amount of the connection fee referred to in section 8.2;
- (d) the proposed location of the energy transfer station;
- (e) the proposed location of the distribution system extension;
- (f) the proposed location of the distribution system extension entry points;
- (g) the proposed schedule for installation or alteration of the building mechanical system;
- (h) the proposed commencement date for the delivery of heat energy by the city to the energy transfer station; and
- (i) such other information as the Chief Building Official or City Engineer may require.

Submission of copy of application

4.2 An applicant must submit a copy of the building permit application to the City Engineer.

Approval of estimated maximum heat energy demand

4.3 The estimated peak heat energy demand submitted under section 4.1(b) is subject to approval by the City Engineer.

Approval of locations

4.4 The location of each of the:

- (a) energy transfer station, submitted under section 4.1(d);
- (b) distribution system extension, submitted under section 4.1(e); and
- (c) entry points, submitted under section 4.1(f);

is subject to approval by the Chief Building Official and City Engineer , and in issuing the permit may impose conditions regarding the location of any equipment other than the energy transfer station in the same room as the energy transfer station, including a waiver of liability and a requirement for indemnification if any other equipment is permitted.

Approval of alternate locations

4.5 If:

- (a) the location which the applicant proposes for the energy transfer station, distribution system extension, or entry points would be acceptable to the Chief Building Official and City Engineer except for increased costs the city would incur to install the energy transfer station or distribution system extension in that location; and
- (b) before issuance of the building permit, the owner:
 - (i) pays the city the estimated increased costs calculated by the City Engineer, and
 - (ii) agrees to pay the city on demand any amount by which the actual increased costs calculated by the City Engineer exceed the estimated increased costs;

the Chief Building Official and City Engineer may approve the alternate location.

Approval of schedule

4.6 The proposed schedule for installation or alteration of the building mechanical system is subject to approval by the City Engineer.

Design of building mechanical system

4.7 The design of the building mechanical system is subject to approval by the Chief Building Official and City Engineer.

Approval of building permit

4.8 The building permit is subject to approval by the:

- (a) Chief Building Official under the Building By-law; and
- (b) Chief Building Official and City Engineer under this By-law.

No work before permit issuance

4.9 A person must not begin to install or alter a building mechanical system until the Chief Building Official has issued the building permit.

SECTION 5 DESIGN AND INSTALLATION OR ALTERATION OF BUILDING MECHANICAL SYSTEM

Integration with energy utility system

5.1 The design and installation or alteration of the building mechanical system must integrate the building mechanical system and energy utility system in a manner that enables the building mechanical system to derive the most benefit possible from the energy utility system and the energy utility system to operate at peak efficiency.

Prohibited components

5.2 A building mechanical system must utilize the energy utility system for all the space heating and domestic hot water requirements for a designated building, and must not incorporate any heat production equipment including boilers, furnaces, hot water heaters or make-up air heaters, air-source or ground-source heat pumps, except that:

- (a) an owner who is constructing a new building or altering an existing building may, as part of the building mechanical system and for the purpose of supplementing the heat energy provided by the energy utility system, incorporate:
 - (i) a solar system to generate heat energy,
 - (ii) distributed water-to-air pump systems where the source of heat is the energy utility system or waste heat recovered inside the building,
 - (iii) water-source variable refrigerant flow systems (VRF) where the source of heat is the energy utility system or waste heat recovered inside the building,
 - (iv) electric resistance heating in stairwells and isolated below-grade bike lockers

and storage rooms, and

- (v) equipment to recover waste heat energy from the refrigeration or cooling system of the building; and
- (b) a person who is altering an existing building may retain components otherwise prohibited under this section 5.2 to the extent permitted by the Chief Building Official under the Building By-law or by the Chief Building Official and City Engineer under this By-law.

Design and technical requirements

5.3 The building mechanical system must comply with the following design and technical requirements:

- (a) the design must not incorporate features that increase the difficulty of efficiently integrating the building mechanical system and energy utility system;
- (b) the energy utility system must provide the heat energy requirements for all domestic hot water and space heating for the designated building supplied from the energy transfer station within the designated building;
- (c) the building mechanical system must achieve a minimum water temperature drop across the heat exchanger interface with the energy utility system to ensure the temperature drop between the energy utility system hot water supply and return pipes is at least 15°C as recorded at the meter;
- (d) the building space heating system must include a variable flow operation with variable speed pumps to minimize the pumping power requirements, and to achieve the minimum water temperature drop;
- (e) all building mechanical system control valves, being terminal units and zone valves, must be the 2-way modulating type or the on/off type for fan coil units;
- (f) the building mechanical system must not include 3-way valves that allow flow to bypass the heating elements except for safety requirements; and
- (g) the building mechanical system must require a supply temperature of no greater than 50°C when the outdoor ambient temperature is greater than 0°C.

Installation of valves

5.4 The city is to install the isolation valves on the building side of the heat exchangers at the energy transfer station.

Scheduling

5.5 An applicant must:

- (a) ensure that installation of the building mechanical system proceeds in accordance with the schedule approved under section 4.6, and any changes to the schedule approved under this section 5.5; and
- (b) advise the Chief Building Official and City Engineer within 24 hours of any proposed changes to the schedule for installation or alteration of the building mechanical system, which proposed changes are subject to approval by the Chief Building Official and City Engineer.

City's scheduling

5.6 To the extent the City Engineer considers it necessary, convenient, or financially prudent, the city is to co-ordinate its schedule for construction of any distribution system extension or energy transfer station for a designated building with the applicant's schedule for installation or alteration of the building mechanical system.

Approval of installation or alteration of work

5.7 Completion of the installation or alteration of a building mechanical system is subject to approval by the Chief Building Official and City Engineer under this By-law.

Adjustment of increased installation costs

5.8 Upon completion by the city of installation of the energy transfer station and distribution system extension or either of them in an alternate location under section 4.5:

- (a) after notice from the City Engineer of the amount by which the actual increased costs calculated by the City Engineer exceed the estimate, the owner referred to in section 4.5 must pay the city the difference; or
- (b) the city must pay the owner the amount by which such actual increased costs are less than the estimate.

No occupancy permit

5.9 An owner is not entitled to issuance of an occupancy permit under the Building By-law for a designated building until the City Engineer has given approval under section 5.7, and the owner has paid the city all fees or charges owing under this By-law.

SECTION 6 ENTRY ONTO REAL PROPERTY

Entry with respect to energy utility system

6.1 The City Engineer, and other employees of the city, may enter onto real property, at any reasonable time, for the purpose of installation, maintenance, repair, or removal of an energy utility system.

Entry with respect to building mechanical system

6.2 The City Engineer, and other employees of the city, may enter onto real property, at any reasonable time, to inspect the real property and appliances and equipment, including any building mechanical system, and to enforce this By-law.

Work on entry

6.3 Without limiting the generality of sections 6.1 and 6.2, the City Engineer, and other employees of the city, for the purposes of those sections, may conduct investigations, expose pipes, calibrate instruments, and read and test meters.

SECTION 7 OPERATION OF ENERGY UTILITY SYSTEM AND BUILDING MECHANICAL SYSTEM

Operation of energy utility system

7.1 The city is to maintain, repair, and manage the energy utility system including the energy transfer station in each designated building up to and including the points of delivery.

No guarantee of service

7.2 The city does not guarantee service, or any particular level or quality of service, to any designated building.

Alteration, interruption, or cessation of service

7.3 The city reserves the right, at any time and without notice, to increase, decrease, interrupt, or cease service to a designated building.

Tampering with energy utility system

7.4 A person must not tamper, interfere with, damage, or destroy any part of the energy utility system.

Operation of building mechanical system

7.5 An owner must maintain and repair the building mechanical system to the points of delivery including:

- (a) keeping the building mechanical system free of foreign material so as to prevent fouling of the heat exchangers at the energy transfer station; and
- (b) treating water in the building mechanical system sufficiently to prevent corrosion of the heat exchangers at the energy transfer station, and in accordance with the minimum criteria set out in Schedule B;

to the extent that the city does not need to clean any heat exchanger in the energy transfer station more often than once in each calendar year.

Application for service

7.6 An owner must apply to the City Engineer in accordance with section 4 to commence service to a designated building by the earlier of:

- (a) six months prior to the date the owner requires service; and
- (b) the date of application for Building Permit.

Meter test

7.7 The City Engineer may test any meter at any time.

Application for meter test

7.8 Upon application by the owner, the City Engineer must test a meter at the energy transfer station provided:

- (a) the City Engineer first provides the owner with an estimate of the cost;
- (b) the owner pays the city the amount of the estimate before commencement of the work.

7.8A After completion of a test under section 7.8:

- (a) the City Engineer must notify the owner of the actual cost;
- (b) if the actual cost is more than the estimated cost, the owner must pay the city the difference within 30 days of the City demanding the money in writing; and
- (c) if the actual cost is less than the estimated cost, the city must pay the owner the excess unless the owner owes the city money under this By-law, then the city may apply the excess against such debt.

Conduct of meter test

7.9 The City Engineer is to notify an owner referred to in section 7.8 of the date and time the meter test is to occur, and the owner is entitled to be present.

Results of meter test

7.10 If the City Engineer finds that a meter, upon testing, is inaccurate in its measurement of heat energy by more than 2%:

- (a) and the meter is over registering heat energy, the owner is entitled to return of the meter testing costs paid under section 7.8; and
- (b) the Collector is to estimate the resulting overpayment or shortfall in accordance with section 7.11 or 7.12.

Adjustment for inaccurate meter

7.11 If a test of under section 7.7 or section 7.8 demonstrates that a meter is inaccurate by more than 2% as the result of a malfunctioning, damaged or broken meter, the Collector must:

- (a) estimate actual heat consumption based on:
 - (i) the average previous heat energy consumption adjusted to take into account seasonal variations, changes in occupancy, or other factors which, in the opinion of the Collector, may affect the consumption of heat energy in the designated building, or
 - (ii) if there is no heat energy consumption history, median consumption rates for similar properties; and
- (b) issue a bill or refund for the estimated heat energy consumption for a period up to the 3 months from the date of the last bill before the test.

Adjustment for Tampering

7.12 If a test of under section 7.7 or section 7.8 demonstrates that a meter is inaccurate by more than 2% as the result of tampering, the Collector must:

- (a) estimate actual heat consumption based on:
 - (i) the average previous heat energy consumption adjusted to take into account seasonal variations, changes in occupancy, or other factors which, in the opinion of the Collector, may affect the consumption of heat energy in the designated building, or
 - (ii) if there is no heat energy consumption history, median consumption rates for similar properties; and
- (b) issue a bill for:
 - (i) estimated heat energy consumption for the entire period of the tampering, as determined by the Collector, and
 - (ii) all costs incurred in estimating heat energy consumption and repairing the City's energy utility system.

Service calls

7.13 An owner may apply to the City Engineer to temporarily interrupt service to a designated building by closing the appropriate valves or by such other means as the City Engineer may find appropriate, and upon paying the appropriate fee set out in Schedule D.

Changes to energy transfer station or distribution system extension

7.14 An owner may apply to the City Engineer to remove, relocate, or alter the energy transfer station or distribution system extension servicing a designated building, and must pay the application fee set out in Schedule D.

Cost of changes to energy transfer station or distribution system extension

7.15 If the City Engineer agrees to remove, relocate, or alter the energy transfer station or distribution system extension referred to in section 7.14:

- (a) the City Engineer is to give the owner an estimate of the cost;
- (b) the owner must pay the city the amount of the estimate before commencement of the work;
- (c) after completion of the work, the City Engineer is to notify the owner of the actual cost;
- (d) if the actual cost is more than the estimated cost, the owner must pay the city the shortfall within 30 days after demand by the city; and
- (e) if the actual cost is less than the estimated cost, the city must pay the owner the excess except that if the owner owes the city money under this By-law at that time, the city may apply the excess against such debt.

SECTION 8 LEVIES AND CHARGES AND OTHER COSTS

Imposition of capacity levy

8.1 From the date the owner requires service, as indicated in the application referred to in section 7.6(a), the owner must pay the city the levy set out in part 2 of Schedule C.

Imposition of a connection levy

8.2 Every owner shall pay to the City a connection levy including the fixed portion and variable portion accordance with Schedule "C" prior to issuance of the building permit.

Imposition of energy charge

8.3 From and after the date upon which service to a designated building begins, the owner must pay the city the charge set out in Part 3 of Schedule C less the credit set out in Part 4 of Schedule C.

Billing for capacity levy or energy charge

8.4 The Collector is to send a bill for the amount of each levy or charge to each owner according to the frequency set out in Schedule C, and the bill is to include:

- (a) the date when payment of the amount of each levy or charge is due and payable;
- (b) the number of megawatt hours of heat energy supplied to the energy transfer station; and
- (c) the number of megawatt hours of heat energy returned from the energy transfer station.

Payment of levy or charge

8.5 The owner of a designated building must pay the city the amount of each levy or charge on or before the due date set out in each bill referred to in section 8.4.

Amount added for late payment

8.6 Council hereby imposes a penalty or loss of discount of an amount equal to 5% of any levy or charge that remains unpaid after the date it is due under this By-law.

Insertion in tax roll

8.7 The Collector may insert each levy or charge in the real-property tax roll with respect to the parcel of real property on which the designated building to which the levy or charge applies is situate.

Adjustment for partial period

8.8 The Collector may pro rate the amount of a levy or charge for a partial billing period on a daily basis.

Variation in matters affecting levy

8.9 With respect to a designated building:

- (a) an owner may apply, no sooner than the end of the second February after full occupancy of the designated building to increase or reduce peak heat energy demand subscription as submitted under section 4.1(b) (i), (ii), and (iii), but may make no more than one such application every three years;
- (b) any approval under 8.9 (a) is subject to review and approval by the City Engineer to ensure that the energy utility system can accommodate the requested adjustment based on system capacity and the financial impact to the utility; and
- (c) the City Engineer may notify the owner that the City Engineer is varying the estimated peak heat energy demand; and, if the City Engineer is of the opinion that, as a result of any such variation, the amount of the levy for the designated building should increase or decrease, the City Engineer may order such increase or decrease to take effect on a date specified by the City Engineer after taking into account the incremental costs to the city as a consequence of the variation.

8.9A Notwithstanding section 8.9 (a) of this by-law, an owner may also apply to the City Engineer in accordance with section 8.9 to reduce the peak heat energy demand during an emergency declared by the Province pursuant to the Emergency Program Act, and the City Engineer may allow such a reduction in the approved peak heat energy demand.

8.9B Any reduction in the peak heat energy demand approved under sections 8.9 and 8.9A may be reviewed by the City Engineer, and may be adjusted by the City Engineer to reflect any change in the peak heat energy demand.

Calculation of city's costs

8.10 Calculation of the costs or estimated costs the city incurs or expects to incur under this By-law is to include, without duplication, amounts spent by the city using its own work force or engaging an independent contractor for gross wages, employee fringe benefits, materials, equipment rentals at rates paid by the city or set by the city for its own equipment, and fees and other charges payable to an independent contractor, plus an amount equal to 20% of those costs to cover the city's overhead and administrative expenses.

SECTION 9 APPLICATIONS AND FEES

Form of application

9.1 Each person who submits an application under this By-law must use the form of application prescribed by the City Engineer, Chief Building Official, or Collector, as the case may be.

Fee for application

9.2 Each person who submits an application under this By-law must pay the applicable fee set out in Schedule D.

Returned cheques

9.3 If a person's cheque is returned to the city, that person must pay to the city on demand the amount set out in Schedule D.

SECTION 10 OFFENCES AND PENALTIES AND ENFORCEMENT

Termination of service

10.1 Without limiting the city's other rights or remedies under this By-law, if an owner fails to pay to the city any levy, charge, fee, or cost for more than 30 days after the due date:

- (a) the Collector may serve notice upon the owner; and

- (b) such notice is to:
 - (i) set out the amount owing,
 - (ii) demand payment of that amount within 10 days from the date of such notice,
 - (iii) notify the owner that failure to pay that amount within such 10 days will result in the city ceasing service to the owner's building, and
 - (iv) notify the owner that the city will not restore such service until the owner has paid to the city the amount owing together with any additional costs incurred by the city in connection with such cessation and restoration of service.

Notice of violation

10.2 An inspector or official of the city, or a by-law enforcement officer, may give notice to any person ordering or directing that person to:

- (a) discontinue or refrain from proceeding with any work or doing anything that contravenes this By-law; or
- (b) carry out any work or do anything to bring a building mechanical system into conformity with this By-law;

within the time specified in such notice.

Service of notice

10.3 An inspector or official of the city, or a by-law enforcement officer, may serve a notice under this By-law:

- (a) by mailing it by registered post to an owner at the address of the owner shown on the real-property assessment roll prepared pursuant to the Assessment Act;
- (b) by handing it to the owner or other person who is the addressee of the notice; or
- (c) if the notice refers to real property, by posting it on the real property.

Offences under By-law

10.4 A person who:

- (a) violates any provision of this By-law, or does any act or thing which violates any provision of this By-law, or suffers or allows any other person to do any act or thing which violates any provision of this By-law;
- (b) neglects to do or refrains from doing anything required to be done by any provision of this By-law; or

- (c) fails to comply, or suffers or allows any other person to fail to comply, with an order, direction, or notice given under any provision of this By-law;

is guilty of an offence against this By-law, and liable to the penalties imposed under this Section 10.

Fine for offence

10.5 Every person who commits an offence against this By-law is punishable on conviction by a fine of not less than \$250.00 and not more than \$10,000.00 for each offence, except that:

- (a) a person who commits an offence under section 7.5 that results in fouling of the heat exchangers is liable to a fine of not less than \$10,000.00 for each offence; and
- (b) a person who fails to comply, or suffers or allows any other person to fail to comply, with an order, direction, or notice given under any provision of this By-law is liable to a fine of not less than \$500.00 for each offence.

Fine for continuing offence

10.6 Every person who commits an offence of a continuing nature against this By-law is liable to a fine not less than \$250.00 and not more than \$10,000.00 for each day such offence continues.

**SECTION 11
ENACTMENT**

Force and effect

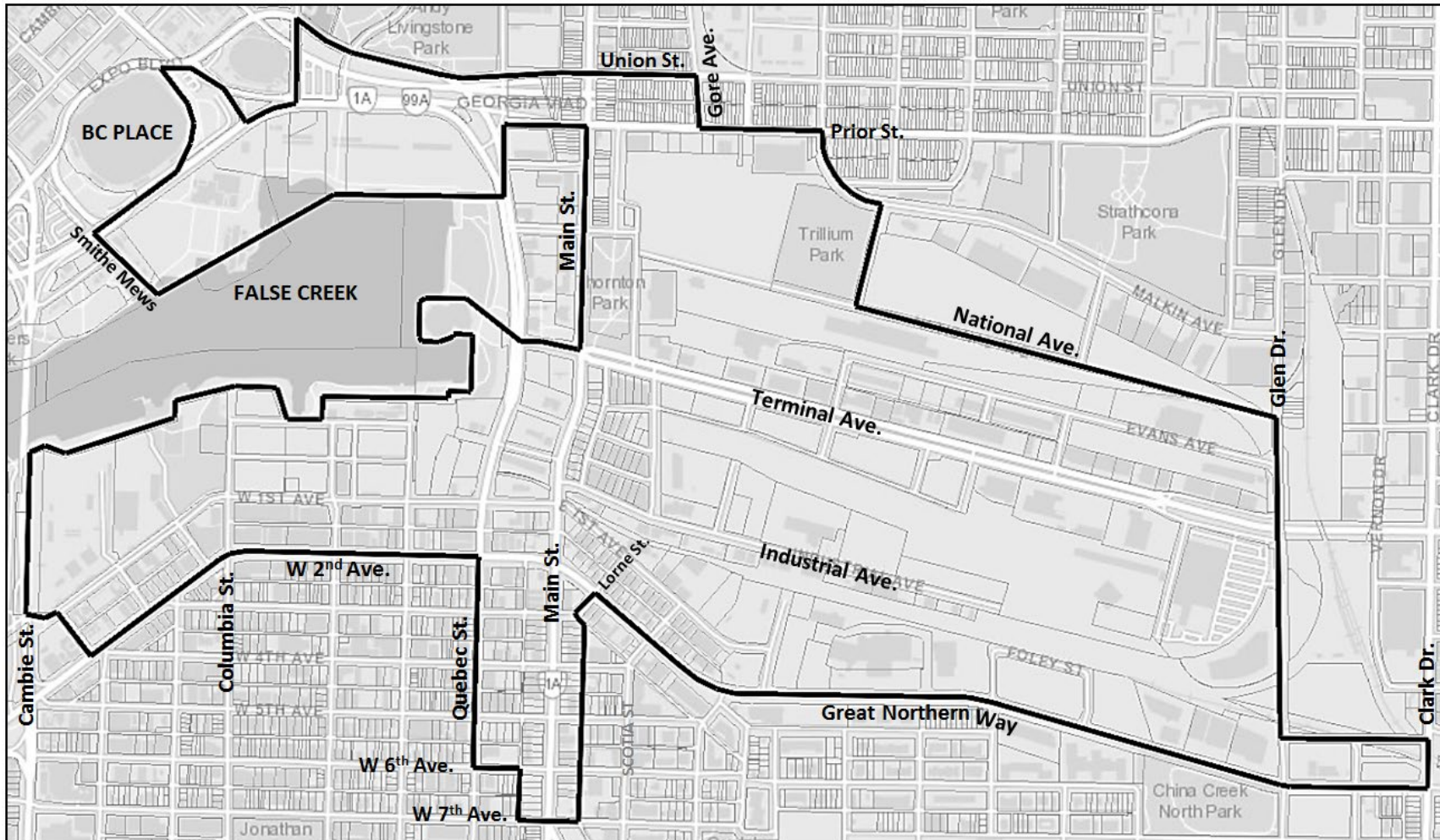
11. This By-law is to come into force and take effect on the date of its enactment.

ENACTED by Council this 15th day of November, 2007

(signed) "Sam Sullivan"
MAYOR

(signed) "Syd Baxter"
CITY CLERK

SCHEDULE A
BOUNDARIES OF SERVICE AREA



SCHEDULE B

STANDARDS FOR TREATING WATER IN THE BUILDING MECHANICAL SYSTEM

- Maximum 50 parts per million chloride for 304 stainless steel (heat exchanger plate material)
- Maximum 250 parts per million chloride for 316 stainless steel
- Maximum 5% nitrate for 304 stainless steel and 316 stainless steel
- PH Level 9.5
- Total bacteria count \leq 100 cfu/ml (colony forming units per millilitre)

**SCHEDULE C
LEVIES AND CHARGES**

PART 1 – Connection levy

Fixed Portion per Energy Transfer Station	\$102,374
Variable Portion per Energy Transfer Station	\$121 per KW of the peak heat energy demand as approved under section 4.3

PART 2 – Monthly capacity levy

Class 1 - SEFC residential or mixed use residential building where the first building permit for the building is applied for before July 1, 2023	\$ 0.653 per m ²
Class 2 - Residential or mixed use residential building located outside SEFC, and SEFC residential or mixed use residential building where the first building permit for the building is applied for on or after July 1, 2023	\$9.827 per KW of peak heat energy demand
Class 3 - Non-residential building	\$9.827 per KW of peak heat energy demand

PART 3 – Monthly energy charge

Monthly energy charge	\$61.193 per MW hour
-----------------------	----------------------

PART 4 – Monthly energy credit

Credit for heat energy returned to energy transfer station	\$61.193 per each MW hour multiplied by 50%
--	---

Bills are to be issued monthly and should be sent out within 60 days of the end of the billing period.

SCHEDULE D

METER TEST COSTS AND MISCELLANEOUS FEES

Section	Application	Fee
7.8	Meter Test	All actual costs to administer, replace, and/or test the meter(s). Refer to section 7.8 and 7.8A.
7.13	Service call during city's normal business hours	\$50.00
7.13	Service call outside city's normal business hours	\$200.00
7.14	Application to remove, relocate, or alter energy transfer station or distribution system extension servicing	\$500.00
9.3	Cheque returned to the city	\$36.00