



# City of Richmond

## Report to Committee

**To:** General Purposes Committee

**Date:** Nov. 1, 2010

**From:** John Irving, P.Eng. MPA  
Director, Engineering

**File:**

**Re:** Alexandra District Energy Utility Bylaw

### Staff Recommendation

That the Alexandra District Energy Utility Bylaw No. 8641 be introduced and given first, second and third reading.

John Irving, P.Eng. MPA  
Director, Engineering  
(604-276-4140)

FOR ORIGINATING DEPARTMENT USE ONLY			
<b>ROUTED TO:</b>		<b>CONCURRENCE</b>	<b>CONCURRENCE OF GENERAL MANAGER</b>
Budgets		Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
Sustainability Unit		Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
Law		Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
Parks Planning, Design & Construction		Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
Building Approvals		Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
Development Applications		Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
Policy Planning		Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
Real Estate Services		Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
<b>REVIEWED BY TAG</b>	YES	NO	<b>REVIEWED BY CAO</b>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>

## Staff Report

### Origin

An interdepartmental staff team that includes members of Engineering & Public Works, Planning, Business and Financial Services, Law, Parks & Recreation, Community Services and Project Development and Facility Services have been working on developing the Alexandra District Energy Utility (ADEU) opportunity with the Oris group of companies.

The purpose of this report is to introduce the proposed Alexandra District Energy Utility Bylaw No. 8641 (**Attachment 2**) for 1<sup>st</sup> to 3<sup>rd</sup> readings.

This initiative aligns with Council's Term Goal #7 that states:

***“Sustainability and the Environment – Demonstrate leadership in and significant advancement of the City's agenda for sustainability through the development and implementation of a comprehensive strategy that among other objectives includes incorporating sustainability into our City policies and bylaws”.***

### Background

#### *Sustainable Energy Systems*

Sustainable energy systems are a key component of a sustainable community. Currently, over 85% of the energy used worldwide is derived from non-renewable fossil fuels. Energy demand, due in both to population increase and per capita energy demand increase, is forecast to result in a doubling of energy consumption by 2030. Presently, this demand is projected to be largely met through use of fossil fuels. Shifting to more sustainability energy systems is required to reduce greenhouse gas reduction emissions and reduce reliance on depleting resource.

Sustainable energy systems are characterized by the following characteristics:

- use energy wisely (are efficient, minimize consumption, minimize waste energy, use renewable sources of energy, matches energy source with use)
- increase energy security by being reliant and adaptable (e.g., minimize price volatility, incorporate localized systems to avoid being completely dependent on external centralized-controlled systems, are adaptable to future technologies and energy sources)
- have low-carbon intensity (i.e., emit zero to low greenhouse gas emissions)
- are cost-effective and do not result in unacceptable impacts (social, environmental or economic).

The Province of BC has adopted a Greenhouse Gas reduction target of 33% from 2007 emissions by 2020 and 80% by 2050 and established legislation requiring that municipalities incorporate

GHG reduction targets, policies and actions into their OCPs by May 31, 2010. At the Regular Council Meeting of April 26<sup>th</sup> meeting, Council adopted the 33% GHG reduction target for consideration at Public Hearing. While most of the necessary action to meet a 33% reduction target is dependent upon Provincial action (e.g., Building Code changes, transit upgrades, etc.) a DEU system has been identified as one of the most strategic initiatives that the City can make to help meet a GHG reduction target and advance towards more sustainable energy systems.

The International Energy Agency is predicting a 35% global increase in energy demand by 2035, generating significant energy cost increases and possibly shortages. This will also make GHG reduction even more challenging.

The ADEU is anticipated to support the achievement of significant ecological health benefits at a broader scale (more local energy systems means lower expansions of centralized systems, greater opportunity to re-use waste and greater efficiencies which again reduce resource consumption). Based on preliminary calculations, use of the DEU for heating and cooling of the Remy and Alexandra's 453 units will result in an estimated avoidance of 200 to 600 Tonnes of GHG generation annually. Through organizations such as Offsetters, the annual value of these carbon credits are currently estimated to be \$5,000 to \$15,000 and are anticipated to increase over time.

## **Analysis**

Staff have identified an opportunity to partner with Oris Geo Energy Ltd. to deliver the first phase of the Alexandra District Energy Utility (ADEU). The ADEU would be a City owned district energy utility that would provide energy for space heating and cooling and domestic hot water in serviced buildings.

Oris Geo Energy Ltd. is somewhat unique among developers in Richmond in that they have successfully developed and operate private on-site closed-loop geothermal utilities in Richmond like the 16-unit Nakade development (13251 Princess St., completed in March, 2009). Oris has gained valuable knowledge and expertise in the design, construction and operation of these systems. Oris is effectively fulfilling the roles of the developer and the utility company and therefore represents an opportunity for the City to proceed with a bilateral agreement for establishing a DEU.

Oris was planning to construct and operate private on-site geothermal systems to service their proposed Remy and Alexandra Gate developments in the Alexandra neighbourhood of West Cambie. This concept envisions geothermal exchange wells installed under the proposed buildings. While Oris' first option is to proceed with these on-site concepts, there are two key areas of aligned interests which make the ADEU a preferred option:

- 1. Administration* Oris is not interested in administering the on-site utilities over the long term as they have less expertise and capacity in utility administration which includes activities such as billing and customer service. The City has considerable depth, expertise, and established systems for utility administration and maintenance.

2. *Scale* The alternative concept to the on-site systems would be to move the system works off-site and use them as the starting point for a larger DEU that would service multiple sites and potentially capture waste heat from commercial and non-residential uses. On a per-unit or square foot basis the utility then becomes less expensive to operate, generating savings for the end user and increasing sustainability benefits.

On this basis, staff have been working with Oris over the last 6 months on the ADEU concept and partnership. The City hired Compass Resource Management Ltd, a consulting company specializing in the business case analysis and implementation of district energy opportunities, and in February Compass completed a district energy screening analysis for the development projects. Also engaged are FVB Energy Inc and Hemmera Energy, companies used by Compass to complete the technical and engineering components of the analysis.

### *Preliminary Concept Design*

Staff engaged Hemmera Energy Ltd. to complete preliminary concept design work for the Alexandra District Energy Utility (ADEU). The first phase of the ADEU would use ground source heat pump (GSHP) technology for the primary renewable energy source. Underground well and piping infrastructure would be sited on park land between Odlin Rd and Cambie Rd. (the Greenway) and the Energy Centre building would be sited on park land south of the Greenway. A general layout of the first phase is presented in **Attachment 1**.

Hemmera has identified an optimal design concept for the future build-out of the ADEU that places the Energy Centre on future park land at 9560 and 9580 Odlin Rd., with distribution pipes running along Odlin Rd and the future May Dr and McKim Way alignments.

### *Greenway Restoration*

City staff will lead the final design concept for the greenway with the intent of ecoplus design. Almost all the ADEU infrastructure in the Greenway will be underground and will not be visible and will not significantly limit options for surface design. The intended result will be to enhance the environmental value of the greenway. An interdepartmental staff team will coordinate to ensure full restoration of the greenway is completed. Should greenway design work be completed in the short term then opportunities will be explored to add scope to the DEU design-build contract.

### *Business Case*

Energy utilities are typified by high up-front capital costs, generally low operating costs, and long term stable revenue. A GSHP DEU system is similar. With regular maintenance and mechanical replacements, the installed DEU infrastructure could be expected to outlast the buildings it services. For this reason, the business case for a DEU is typically analysed using full life-cycle costing. Compass has analysed the West Cambie DEU using this method based on a series of conservative assumptions including 0.5 FTE for plant operation and maintenance, insurance, land lease costs for

the equipment building and a 30 year infrastructure life cycle. The resulting estimated capital and annual operating costs (in 2010 dollars) are as follows:

Estimated DEU Capital (off-site wells, equipment building and distribution piping)	<b>\$3 million</b>
Estimated Annual DEU operating costs at full commissioning (first year of full operation 2014)	<b>\$80,000</b>
Estimated Annual DEU revenue at full commissioning (first year of full operation 2014)	<b>\$360,000</b>

The partnership agreement with Oris would provide revenue sharing over a 30-year period to Oris in return for delivery of the serviced developments. For the City, the agreement will result in an estimated non-discounted accounting payback of 12 to 17 years and a financial payback of 17 to 27 years based on a discount rate of 5%.

As per statutory requirements, the key terms of the final partnership agreement will be published prior to execution.

### *Rates*

The estimated annual revenue is based on flat charge of \$0.08/sq.ft./month to the Remy and Alexandra Gate buildings with a combined area of 35,500 sq.m. This rate is calculated based on the Council adopted objective to provide end users with annual energy costs that are less than conventional system energy costs based on the same level of service.

### *Consultation*

Staff initiated consultation with UDI, local landowners and developers and the City's Advisory Committee on the Environment. Copies of the draft bylaw and the preliminary concept design report have been distributed to these groups for review and comment.

Initial feedback on the ADEU concept is positive. The only significant concern identified to date is the potential for increased construction costs resulting from the need to install DEU compatible in-building systems. Staff will bring forward options for Council's consideration on this issue with the proposed bylaw amendment described below.

### *Proposed Bylaw*

The proposed Bylaw is applicable to only the Oris properties in the Alexandra neighbourhood - the Remy and the Alexandra Gate developments at 9388 Cambie Rd. and 4008 Stolberg St. respectively.

Staff recommend adoption of the Bylaw to facilitate the implementation of phase 1 of the ADEU.

Staff are engaged in ongoing consultations with stakeholders on the expansion of the ADEU to the larger Alexandra Neighbourhood. Staff will be bringing forward a report to committee on this potential expansion that will include:

- required amendments to the proposed Bylaw,
- options and recommendations for addressing the concerns of developers and land owners with in-stream development applications, and
- options for funding the ADEU expansion.

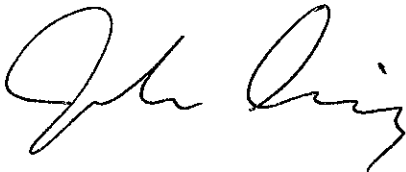
### **Financial Impact**

Adoption of the Bylaw and subsequent execution of the ADEU agreements with Oris will commit the City to the development of the first phase of the ADEU.

A submission for \$4 M for the ADEU 1<sup>st</sup> Phase will be made with the 2011 Capital Budget staff report to be brought forward to the Finance Committee.

### **Conclusion**

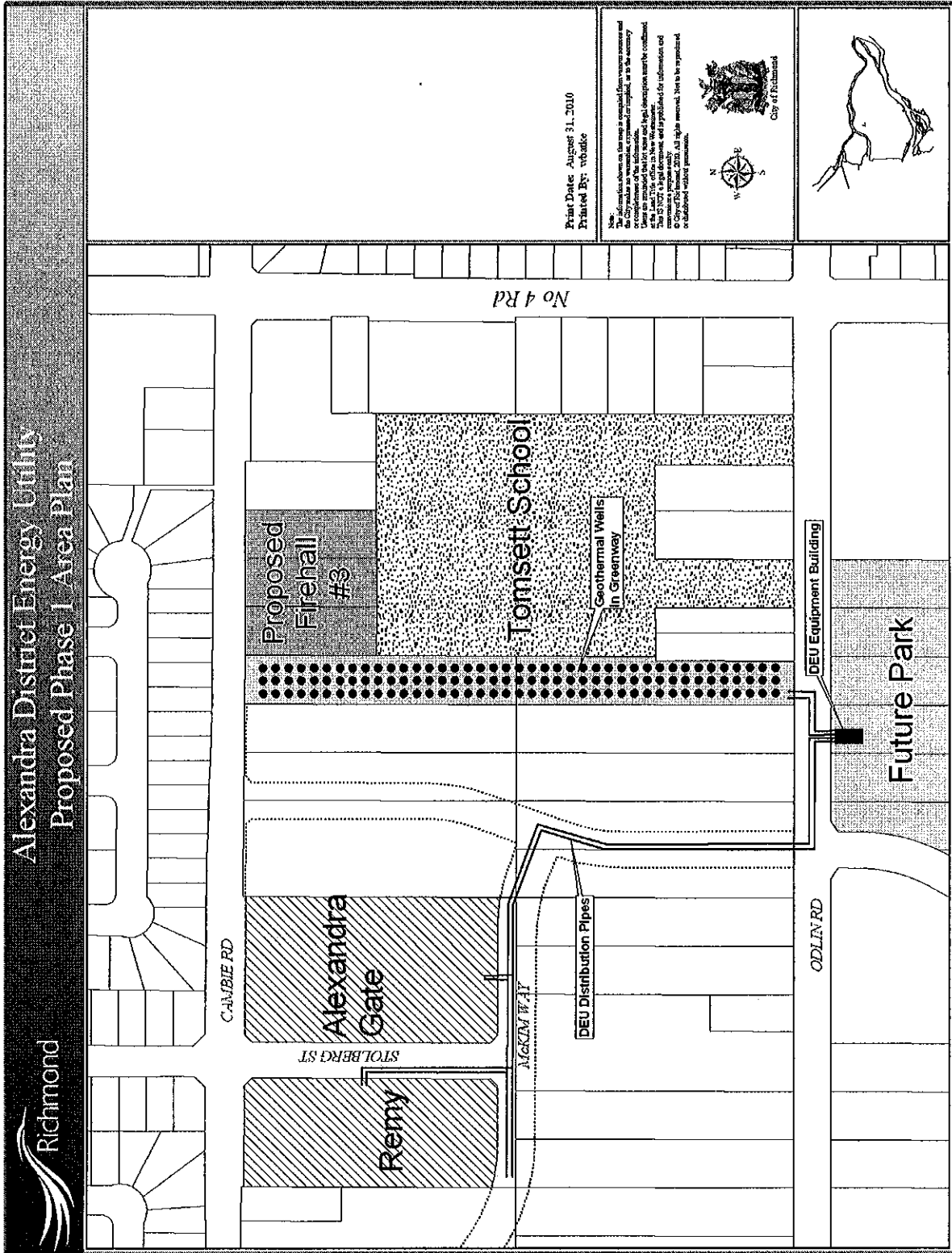
Establishment of the ADEU will represent one of the most significant advancements to date towards meeting the City's sustainability and GHG reduction goals. It is recommended that the Alexandra District Energy Utility Bylaw No. 8641 be introduced and given first, second and third reading.



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:jp  
Att: (1)

Attachment 1 – Alexandra District Energy Utility – Phase 1 Area Plan



Richmond Planning Services Inc. 1000 West Cambie Street, Vancouver, BC V6P 4R1. File Name: Alexandra District Energy Utility 1010.dwg

Nov. 1, 2010

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**Attachment 2 – Proposed Alexandra District Energy Utility Bylaw No. 8641**





## Alexandra District Energy Utility

WHEREAS the Community Charter empowers the municipality to provide any service that the Council considers necessary or desirable.

WHEREAS the City of Richmond (the “City”) wishes to establish a service for the purpose of providing energy for space and water heating and cooling to multi-family, residential, commercial, institutional and industrial buildings located within the Alexandra neighbourhood of the municipality.

NOW THEREFORE the Council of the City of Richmond enacts as follows:

### PART 1: INTERPRETATION

#### 1.1 Name of Bylaw

This Bylaw shall be known and cited for all purposes as “Alexandra District Energy Utility Bylaw No. 8641.”

#### 1.2 Definitions

Unless the context indicates otherwise, in this Bylaw and in the schedules referred to herein the following words have the following meanings:

- (a) “**back-billing**” has the meaning given in Section 14.2 of this Bylaw;
- (b) “**building**” means any multi-family residential, commercial, institutional and industrial buildings, and includes new and existing buildings described in Section 3.1 of this Bylaw;
- (c) “**building mechanical system**” means a DEU-compatible mechanical system, including an internal space heating and cooling and domestic hot water distribution system, for a building located on Designated Property that is to receive the Services;
- (d) “**City Engineer**” means the individual appointed by Council to be the General Manager of the Engineering and Public Works Department of the City, or his or her designate;
- (e) “**City Solicitor**” means the person so appointed, and includes his or her designate(s);

- (f) **“Cooling”** means the energy transferred from the DEU through the Distribution System for the purpose of lowering the ambient air temperature in a Designated Property;
- (g) **“Council”** means the Council of the City of Richmond;
- (h) **“Customer”** means an Owner of a Designated Property who is being provided with the Services or who has filed an application for Services with the Service Provider that has been approved by the Service Provider;
- (i) **“Delivery Point”** means the outlet of the Heat Exchanger;
- (j) **“Designated Property”** means the building(s) to which this Bylaw applies pursuant to Section 3 of this Bylaw;
- (k) **“DEU”** means the district energy generation and utility system referred to in Section 2.1 of this Bylaw and consists collectively of the Distribution System, the material, machinery, equipment and fixtures forming part of the Energy exchange system used for the purpose of heating or cooling the fluid that flows through the Distribution System and the Service Connections and all equipment including the pressure vessels, conduits, pipes, valves, lines, pumps, Heat Exchangers and Meter Sets together with all fluid, ancillary appliances and fittings necessary to provide Energy to Designated Properties in the Service Area and all additions thereto and replacements thereof as such system is expanded, reduced or modified from time to time;
- (l) **“Director, Building Approvals”** means the individual so appointed, or his or her designate;
- (m) **“Distribution System”** means the system of fluid pipes, fittings and ancillary components used for distributing fluid for the purposes of providing Energy to Designated Properties in the Service Area including all additions thereto and replacements thereof and the system of fluid pipes connecting the Distribution System to the Service Connection including all additions thereto and replacements thereof;
- (n) **“Energy”** means heated fluid and cooled fluid;
- (o) **“Gross Floor Area”** means the total area of all horizontal floors, measured to the outer building limits, including all uses and all areas giving access such as corridors, hallways, landings, foyers, staircases and stairwells, and includes enclosed balconies and mezzanines, enclosed porches or verandas, elevator shafts and accessory buildings, except those used for parking;
- (p) **“Heat Exchanger”** means the equipment including ventilation systems and electrical pumps installed at a Designated Property to transfer Energy from the DEU to the Designated Property;

- (q) “**Heating**” means the energy transferred for the purpose of raising the ambient air or domestic hot water temperature in a Designated Property;
- (r) “**Meter Set**” means an assembly of metering and ancillary equipment, including Heat Exchangers, that measure the amount of Energy consumed by a Customer;
- (s) “**Owner**” means a person who owns, occupies, or controls a parcel of real property with a building thereon, 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, a strata corporation established or continued under the *Strata Property Act* of British Columbia and an owner of a freehold estate in a Strata Lot;
- (t) “**Person**” or “**person**” means any individual, corporation, limited-liability company, partnership, firm, joint venture, association, trust, or other entity or organization, including a government authority;
- (u) “**Rates**” means, collectively, the fixed monthly charges, capacity charges and volumetric charges specified in Schedule C (Rates and Charges) for Services, as amended from time to time;
- (v) “**Service Area**” means the area in the City of Richmond as delineated in the boundaries map attached as Schedule A hereto or such portions thereof as may be designated by the Council and such other areas as may be added from time to time by the Council;
- (w) “**Service Related Charges**” include, but are not limited to, the fees specified in Schedule B (Fees), the rates and charges specified in Schedule C (Rates and Charges), HST and all other taxes applicable to the Services;
- (x) “**Services**” means the delivery of Energy from and through the DEU to a Delivery Point and through a Meter Set for use in a Designated Property, and any service provided in connection with the DEU, including but not limited to providing a Service Connection, re-activating existing Service Connections, transferring an existing account, changing the type of Services provided, or making alterations to existing Service Connections, Heat Exchangers or Meter Sets;
- (y) “**Services Agreement**” has the meaning given in Section 5.1 of this Bylaw;
- (z) “**Service Connection**” means that portion of the DEU extending from the Distribution System to the Delivery Point;
- (aa) “**Service Provider**” means the City or such other Person appointed, contracted or otherwise engaged by Council to operate, maintain and manage the DEU on behalf of the City, and to provide the Services to Customers in accordance with the terms and conditions of this Bylaw, including its successors, assigns, officers, employees, servants, agents and contractors; and

(bb) “Strata Lot” has the meaning given in *Strata Property Act*.

**1.3 Headings and Table of Contents**

The division of this Bylaw into sections and the insertion of the table of contents and headings are for convenience of reference only and shall not affect the construction or interpretation of the Bylaw.

**1.4 Severability**

Each provision of this Bylaw is intended to be severable and if any provision is determined by a court of competent jurisdiction to be illegal or invalid or unenforceable for any reason whatsoever such provision shall be severed from this Bylaw and will not affect the legality, validity or enforceability of the remainder of or any other provision of this Bylaw.

**1.5 Schedules**

The following schedules are incorporated into and form a part of this Bylaw:

- Schedule A - Boundaries of Service Area
- Schedule B - Fees
- Schedule C - Rates and Charges

**PART 2: ESTABLISHMENT OF DEU**

**2.1 Authorization for DEU**

Council hereby authorizes the design, construction, installation, operation, maintenance, repair, and management of a district energy utility system for the generation, storage, transmission, and distribution of energy for the heating and cooling of space and water at any Designated Property within the Service Area.

**2.2 Ownership of DEU**

Ownership of the DEU, including any expansion or extension of the DEU, is to remain vested in the City or its successors and assigns, and is not to pass to any Owner, or other person who has an interest in a Designated Property, and, despite any attachment or annexation to a Designated Property or other real property, the Distribution System, Service Connections, Meter Sets and Heat Exchangers are not to become part of a Designated Property or other real property.

**PART 3: APPLICATION OF BYLAW**

**3.1 Mandatory Use of DEU**

Subject to the Service Provider providing Services pursuant to this Bylaw, each Owner of a new building proposed for construction or under construction within the Service Area after the date of enactment of this Bylaw, for which the City's Building Regulation Bylaw requires submission of a building permit application or issuance of final inspection notice permitting occupancy, to any one of which the Owner, as at the date of enactment of this Bylaw, is not yet entitled, will

connect to and utilise the DEU for internal space heating and cooling and domestic hot water in accordance with the terms and conditions of this Bylaw.

### **3.2 Permissive Use of DEU**

An Owner of property located outside the Service Area but within the City of Richmond may apply to the City Engineer to utilize the DEU, and if:

- (a) the City Engineer is of the opinion that the DEU 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 City Solicitor, undertaking, among other matters, to wholly or partially, in the City's sole discretion, fund the capital cost of extending the DEU outside the Service Area 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 utilize the DEU in accordance with the terms and conditions of this Bylaw.

## **PART 4: APPLICATION REQUIREMENTS**

### **4.1 Application for Services**

An Owner of a Designated Property that must utilize the DEU pursuant to Section 3.1 of this Bylaw, and an Owner of a Designated Property seeking the Services pursuant to Section 3.2 of this Bylaw, must apply to the Service Provider for the Services at least 120 days before the date the Owner requires the Services.

### **4.2 Required Documents**

An Owner applying for Services may be required to sign an application form and a Services Agreement provided by the Service Provider.

### **4.3 Separate Properties**

If an Owner is requesting Services from the Service Provider at more than one Designated Property, then the applicant will be considered a separate Customer for each Designated Property.

### **4.4 Required References**

The Service Provider may require an applicant for Services to provide reference information and identification acceptable to the Service Provider.

**4.5 Refusal of Application**

The Service Provider may refuse to accept an application for Services for any of the reasons listed in Section 17 (Discontinuance of Services and Refusal of Services).

**PART 5: AGREEMENT TO PROVIDE SERVICE**

**5.1 Services Agreement**

“Services Agreement” means an agreement between the Service Provider and a Customer for the provision of Services, whether such agreement is:

- (a) in the form of a written application of the Customer for Services that has been approved by the Service Provider and that is deemed to include the terms and conditions specified in this Bylaw; or
- (b) the Service Provider’s standard services agreement signed by the Customer.

**5.2 Term**

A Services Agreement between a Customer and the Service Provider will commence on the later of:

- (a) either the date the Customer’s application is approved by the Service Provider under Section 5.1(a) above; or
- (b) the date indicated in the Service Provider’s standard services agreement, or if none, the date that the standard services agreement is signed by the Customer,

and will continue until the Services Agreement is terminated either in accordance with the terms of the Services Agreement or the terms of this Bylaw.

**5.3 Customer Status**

An Owner becomes a Customer of the Service Provider on the earlier of:

- (a) the date that the term of the Services Agreement commences under Section 5.2 above; or
- (b) the date that the Service Provider commences the provision of Services to the Owner’s Designated Property.

**5.4 No Assignment/Transfer**

A Customer may not transfer or assign a Services Agreement without the written consent of the Service Provider.

## **PART 6: CONNECTING FOR SERVICES**

### **6.1 Service Connection**

Subject to Section 6.4 of this bylaw, the Service Provider will serve each Designated Property with one Service Connection. Each Designated Property will be installed with its own Meter Set.

### **6.2 Installation of Service Connection**

The Service Provider will:

- (a) designate the location of the Heat Exchanger, Meter Set and Service Connection on the Designated Property and determine the amount of space that must be left unobstructed around them;
- (b) install the Heat Exchanger and Meter Set upon payment of the applicable installation fees set out in Schedule B (Fees) to this Bylaw; and
- (c) install the Service Connection from the DEU to the Delivery Point on the Designated Property using the route which is the most suitable to the Service Provider.

### **6.3 Customer Requested Routing**

If a Customer requests:

- (a) that its piping or Service Connection enter the Designated Property at a different point of entry or follow a different route from the point or route designated by the Service Provider; and/or
- (b) that the Heat Exchanger or Meter Set be installed at a different location from the location designated by the Service Provider,

then, provided that:

- (c) the Customer pays the Service Provider in advance for all for all additional costs as determined by the Service Provider to install the Heat Exchanger, Meter Set and Service Connection in accordance with the Customer's request; and
- (d) the Service Provider is satisfied that approving the Customer's request will not have an adverse effect on the operations of the DEU or create any other undesirable consequences, including but not limited to public health and safety concerns,

the Service Provider may accept the request. If the request is accepted, the Service Provider may either approve the requested routing or entry point or installation locations as originally requested or may, with the Customer's agreement, modify the requested routing or entry point or installation locations.

#### **6.4 Additional Service Connections**

A Customer may apply to the Service Provider for one or more additional Service Connections at a Designated Property, which additional Service Connections may be provided at the sole discretion of the Service Provider. If the Service Provider agrees to install the additional Service Connection, the Service Provider may charge the Customer, in addition to the service connection installation fee set out in Schedule B (Fees), the actual full cost (including overhead costs) for the Service Connection installation. The Service Provider will bill each additional Service Connection from a separate meter and account.

#### **6.5 Site Preparation**

Customers will be responsible for all necessary site preparation including but not limited to clearing building materials, construction waste, equipment, soil and gravel piles over the proposed service line route, to standards established by the Service Provider. The Service Provider may recover from Customers any additional costs associated with delays or site visits necessitated by inadequate or substandard site preparation.

#### **6.6 Easement, Statutory Right of Way and Section 219 Covenant**

- (a) An Owner of a Designated Property that is to receive Services under this Bylaw must sign and deliver to the Service Provider a section 219 covenant and a statutory right of way to be registered against title to the Designated Property, in the form specified by the Service Provider, for the installation, operation and maintenance on the Designated Property of all necessary facilities for supplying the Services to the Designated Property; and
- (b) If one or more privately-owned intervening properties are located between the Designated Property and the DEU, then the Customer will obtain, at the Customer's sole cost, a registered easement and a statutory right of way in favour of the Service Provider, in a form specified by the Service Provider, for the installation, operation and maintenance on each intervening property of all necessary facilities for supplying the Services to the Designated Property.

#### **6.7 Maintenance by Service Provider**

Subject to Section 6.8 of this bylaw, the Service Provider will maintain the Service Connection, Heat Exchanger and Meter Set.

#### **6.8 Maintenance by Customer**

Each Customer and Owner of Designated Property must maintain and repair the mechanical systems in all buildings on their Designated Properties, to the Delivery Points, including:

- (a) keeping the building mechanical systems free of foreign material so as to prevent fouling of the Heat Exchangers; and
- (b) treating all water in the building mechanical system sufficiently to prevent corrosion of the Heat Exchangers.



### **6.9 Service Calls**

A Customer or Owner may apply to the Service Provider to temporarily interrupt service to a Designated Property by closing the appropriate valves or by such other means as the Service Provider may find appropriate.

### **6.10 Damage**

The Customer must advise the Service Provider immediately of any damage to the Service Connection, Heat Exchanger or Meter Set.

### **6.11 No Obstruction**

A Customer must not construct any permanent structure which, in the sole opinion of the Service Provider, obstructs access to a Service Connection, Heat Exchanger or Meter Set.

### **6.12 Removal of Service Connection**

If the supply of Services to a Customer's Designated Property is discontinued or terminated for any reason then, the Service Provider may, but is not required to, remove the Service Connection from the Customer's Designated Property.

## **PART 7: HEAT EXCHANGERS, METER SETS AND METERING**

### **7.1 Installation**

In order to provide the Services and bill a Customer for Energy delivered, the Service Provider will install one or more Heat Exchangers and Meter Sets on a Customer's Designated Property. The technical specifications of all Heat Exchangers and Meter Sets will be determined by the Service Provider. Unless approved by the Service Provider, all Heat Exchangers and Meter Sets will be installed at locations chosen by the Service Provider.

### **7.2 Measurement**

The quantity of Energy delivered to a Designated Property will be metered using apparatus approved by the Service Provider. The amount of Energy registered by the Meter Set during each billing period will be converted to kilowatts and rounded to the nearest one-tenth of a kilowatt.

### **7.3 Testing Meters**

A Customer may apply to the Service Provider to test a Meter Set, and the Service Provider will notify such Customer of the date and time the test is to occur, and the Customer is entitled to be present for the test. If the testing indicates that:

- (a) the Meter Set is inaccurate in its measurement by 10% or more, then:
  - (i) the Customer is entitled to return of the meter testing fee paid pursuant to Section 10.1 (Fees for application) of this bylaw;
  - (ii) the cost of removing, replacing and testing the Meter Set will be borne by the Service Provider subject to Section 19.4 (Responsibility for Heat Exchanger and Meter Set) of this bylaw; and

- (iii) the Service Provider will estimate the resulting billing overpayment or shortfall, and settle with the Customer accordingly, provided any such settlement will not extend beyond 12 months before the month in which the test takes place.

#### **7.4 Defective Meter Set**

If a Meter Set ceases to register, then the Service Provider will estimate the volume of Energy delivered to the Customer according to the procedures set out in Section 13.7 (Incorrect Register) of this bylaw.

#### **7.5 Protection of Equipment**

The Customer must take reasonable care of and protect all Heat Exchangers, Meter Sets and related equipment on the Customer's Designated Property. The Customer's responsibility for expense, risk and liability with respect to all Heat Exchangers, Meter Sets and related equipment is set out in Section 19.4 (Responsibility for Heat Exchanger and Meter Set) of this bylaw.

#### **7.6 No Unauthorised Changes**

No Heat Exchangers, Meter Sets or related equipment will be installed, connected, moved or disconnected except by the Service Provider's authorized employees, contractors or agents or by other Persons acting with the Service Provider's written permission.

#### **7.7 Removal of Equipment**

If the supply of Services to a Customer's Designated Property is discontinued or terminated for any reason then, the Service Provider may, but is not required to, remove the Heat Exchanger, Meter Set and related equipment from the Customer's Designated Property.

#### **7.8 Customer Requested Alterations**

A Customer may apply to the Service Provider to remove, relocate or alter a Meter Set, Heat Exchanger or related equipment servicing a Designated Property, which removal, relocation or alteration may be provided at the sole discretion of the Service Provider. If the Service Provider agrees to remove, relocate, or alter the Meter Set, Heat Exchanger or related equipment:

- (a) the Service Provider will give the Customer an estimate of the cost;
- (b) the Customer must pay the Service Provider the amount of the estimate before commencement of the work;
- (c) after completion of the work, the Service Provider will notify the Customer of the actual cost;
- (d) if the actual cost is more than the estimated cost, the Customer must pay the Service Provider the shortfall within 30 days after demand by the Service Provider;
- (e) if the actual cost is less than the estimated cost, the Service Provider must pay the Customer the excess, except that if the Customer owes the Service Provider

money under this Bylaw at that time, the Service Provider may apply the excess against such debt; and

- (f) if any of the changes to the Heat Exchanger, Meter Set or related equipment require the Service Provider to incur ongoing incremental operating and maintenance costs, the Service Provider may recover these costs from the Customer through the billing process established by this Bylaw.

## **PART 8: DEU EXPANSIONS AND EXTENSIONS**

### **8.1 Expansion and Extension**

The City may make extensions and expansions of the DEU in accordance with system development requirements.

## **PART 9: ACCESS**

### **9.1 Access to Designated Property**

The Customer must provide free access to, and the Service Provider and its authorized employees, contractors and agents have the right of entry, at any reasonable time, onto a Customer's Designated Property, for the purpose of reading, testing, repairing or removing Service Connections, Meter Sets, Heat Exchangers and ancillary equipment, turning Energy on or off, completing system leakage surveys, stopping leaks, examining pipes, connections, fittings and appliances and reviewing the use made of Energy delivered to the Customer, to inspect and determine whether all regulations, prohibitions and requirements contained in this Bylaw and in any Services Agreement are being met, or for any other related purpose which the Service Provider requires.

### **9.2 Access to Equipment**

The Customer must at all reasonable times provide clear access to the Service Provider's equipment including the equipment described in section 9.1 of this bylaw.

## **PART 10: APPLICATION AND SERVICE CONNECTION INSTALLATION FEES**

### **10.1 Fees for applications and installations**

Each person who submits an application and/or requests any installation for purposes of receiving Services under this Bylaw must pay the applicable fees set out in Schedule B, Fees.

### **10.2 Waiver of Application Fee**

The application fee will be waived by the Service Provider if Services to a Customer are reactivated after they were discontinued for any of the reasons described in Section 16.2 (Right to Restrict).

### 10.3 Reactivation Fees

If Services are terminated

- (a) for any of the reasons described in Section 17 (Discontinuance of Service and Refusal of Services) of this bylaw; or
- (b) to permit a Customer to make alterations to their Designated Property,

and the same Customer or the spouse, employee, contractor, agent or partner of the same Customer requests reactivation of Services to the Designated Property within 12 months of the date of Services termination, then the applicant for reactivation must pay the greater of:

- (c) the costs the Service Provider incurs in de-activating and re-activating the Services; or
- (d) the sum of the applicable minimum Rates and charges set out in Schedule C (Rates and Charges) which would have been paid by the Customer between the time of termination and the time of reactivation of Services.

### 10.4 Identifying Meter Sets

If a Customer requests the Service Provider to identify the Meter Set that serves the Customer's Designated Property after the Meter Set was installed, then the Customer will pay to the Service Provider the costs the Service Provider incurs in re-identifying the Meter Set where:

- (a) the Meter Set is found to be properly identified; or
- (b) the Meter Set is found to be improperly identified as a result of Customer activity, including but not limited to:
  - (i) a change in the legal civic address of the Designated Property; or
  - (ii) renovating or partitioning the Designated Property.

### 10.5 Basis of Fees

The fees specified in Schedule B (Fees) shall be based on the cost of providing, maintaining and expanding the Services and may be different for each Designated Property based upon the use, capacity and consumption of each Designated Property.

## PART 11: RATES, CHARGES AND OTHER COSTS

### 11.1 Rates Payable

Each Customer must pay to the Service Provider the applicable Rates for the Services as specified in Schedule C (Rates and Charges), as amended from time to time.

### **11.2 Calculation of Service Provider's Costs**

Where the City is the Service Provider, calculation of the costs or estimated costs the City incurs or expects to incur under this Bylaw 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 to cover the City's overhead and administrative expenses.

### **11.3 Electrical pump costs**

Where a Heat Exchanger installed on a Designated Property is operated by one or more electrical pumps, the Customer must pay all costs of electricity consumed by the electrical pumps for the proper operation of the Heat Exchanger.

## **PART 12: SECURITY FOR PAYMENT OF BILLS**

### **12.1 Security Deposit**

If a Customer cannot establish or maintain credit to the satisfaction of the Service Provider, then the Customer may be required to provide a security deposit in the form of cash or an equivalent form of security acceptable to the Service Provider, the amount of which shall not:

- (a) be less than \$50; and
- (b) be greater than an amount equal to the estimate of the total bill for the two highest consecutive months' consumption of Energy by the Customer.

### **12.2 Interest**

The Service Provider will pay interest to a Customer on a security deposit at the rate and at the times specified in the Schedule B (Fees). Subject to Section 12.5, if a security deposit in whole or in part is returned to the Customer for any reason, the Service Provider will credit any accrued interest to the Customer's account at that time. No interest is payable on:

- (a) any unclaimed deposit left with the Service Provider after the account, for which security was obtained, is closed; and
- (b) a deposit held by the Service Provider in a form other than cash.

### **12.3 Refund of Deposit**

When the Customer pays the final bill, the Service Provider will refund any remaining cash security deposit plus any accrued interest to the Customer, or will cancel the equivalent form of security and provide evidence of such cancellation upon request by the Customer.

### **12.4 Unclaimed Refund**

If the Service Provider is, despite reasonable efforts, unable to locate the Customer to whom a cash security deposit is repayable, and the cash security deposit remains unclaimed 10 years after

the date on which it first became refundable, the deposit, together with any interest accrued thereon, will be forfeit and will become the absolute property of the Service Provider.

### **12.5 Application of Deposit**

If a Customer's bill is not paid when due, the Service Provider may apply all or any part of the Customer's security deposit and any accrued interest thereon toward payment of the bill. Even if the Service Provider utilizes the security deposit, the Service Provider may, under Section 17 (Discontinuance of Services and Refusal of Services), discontinue Services to the Customer for failure to pay for Services on time.

### **12.6 Top-Up of Deposit**

If a Customer's security deposit is utilized by the Service Provider for payment of an unpaid bill, the Customer must replenish the security deposit before the Service Provider will reconnect or continue providing Services to the Customer.

### **12.7 Failure to Provide Security Deposit**

Failure to provide security deposit acceptable to the Service Provider may, in the Service Provider's discretion, result in discontinuance or refusal of Services as set out under Section 17 (Discontinuance of Service and Refusal of Service).

## **PART 13: BILLING**

### **13.1 Basis for Billing**

The Service Provider will bill the Customer in accordance with the Customer's Services Agreement and this Bylaw, for the amount of each fee, rate or charge that the Customer is responsible for paying for receipt of and in relation to the Services.

### **13.2 Form of Bill**

Each bill sent to a Customer by the Service Provider for Services provided will include:

- (a) the amounts of any fees, rates and charges, costs and taxes thereon, that are due and payable;
- (b) the date when the bill is due and payable;
- (c) the number of kilowatt hours of heat energy supplied to the Heat Exchanger and Meter Set; and
- (d) the number of kilowatt hours of heat energy returned from the Heat Exchanger and Meter Set.

### **13.3 Meter Measurement**

The Service Provider will measure the quantity of Energy delivered to a Customer using a Meter Set and the starting point for measuring delivered quantities during each billing period will be the finishing point of the preceding billing period.

**13.4 Multiple Meters**

For a Customer who has more than one Meter Set on their Designated Property, each Meter Set will be billed separately.

**13.5 Estimates**

If the Service Provider is not able to obtain a meter reading for any reason, the Service Provider may estimate the Customer's meter readings for billing purposes.

**13.6 Estimated Final Reading**

If a Services Agreement is terminated, the Service Provider may estimate the final meter reading for final billing.

**13.7 Incorrect Register**

If any Meter Set has failed to measure the delivered quantity of Energy correctly, then the Service Provider may estimate the meter reading for billing purposes, subject to Section 14 (Back-Billing).

**13.8 Bills Frequency**

The Service Provider may bill a Customer as often as the Service Provider considers necessary but generally will bill on a quarterly basis.

**13.9 Bill Due Dates**

The Customer must pay the Service Provider's bill for Services on or before the due date shown on each bill.

**13.10 Adjustment for Partial Period**

The Service Provider may pro rate the amount due from a Customer for a partial billing period, on a daily basis.

**13.11 Historical Billing Information**

Customers who request historical billing information may be charged the cost of processing and providing the information.

**PART 14: BACK-BILLING****14.1 When Required**

The Service Provider may, in the circumstances specified herein, charge, demand, collect or receive from its Customers for the Services rendered thereunder a greater or lesser compensation than that specified in bills to the Customers, provided that in the case of a minor adjustment to a Customer's bill, back-billing treatment may not be applied.

## 14.2 Definition

Back-billing means the re-billing by the Service Provider for Services rendered to a Customer on account of a discovery that the original billings are either too high (overbilled) or too low (underbilled). The discovery may be made by either the Customer or the Service Provider. The cause of the billing error may include any of the following non-exhaustive reasons or any combination thereof:

- (a) stopped meter;
- (b) metering equipment failure;
- (c) missing meter now found;
- (d) switched meters;
- (e) double metering;
- (f) incorrect meter connections;
- (g) incorrect use of any prescribed apparatus respecting the registration of a meter;
- (h) incorrect meter multiplier;
- (i) the application of an incorrect rate;
- (j) incorrect reading of meters or data processing; and
- (k) tampering, fraud, theft or any other criminal act.

## 14.3 Re-Billing Basis

Where metering or billing errors occur, the consumption and demand will be based upon the records of the Service Provider for the Customer, or the Customer's own records to the extent they are available and accurate, or if not available, reasonable and fair estimates may be made by the Service Provider. Such estimates will be on a consistent basis with Designated Properties and buildings of a similar kind, or according to the Services Agreement.

## 14.4 Tampering/Fraud

If there are reasonable grounds to believe that the Customer has tampered with or otherwise used the Service Provider's Services in an unauthorized way, or there is evidence of fraud, theft or other criminal acts, or if a reasonable Customer should have known of the under-billing and failed to promptly bring it to the attention of the Service Provider, then:

- (a) the extent of back-billing will be for the duration of the unauthorized use, subject to the applicable limitation period provided by law, and the provisions of Sections 14.7 (Under-Billing) to 14.10 (Changes in Occupancy), below, will not apply;



- (b) the Customer is liable for the direct administrative costs incurred by the Service Provider in the investigation of any incident of tampering, including the direct costs of repair, or replacement of equipment; and
- (c) under-billing resulting from circumstances described above will bear interest at the rate normally charged by the Service Provider on unpaid accounts from the date of the original under-billed invoice until the amount under-billed is paid in full.

#### **14.5 Remediating Problem**

In every case of under-billing or over-billing, the cause of the error will be remedied as soon as possible, and the Customer will be promptly notified of the error and of the effect upon the Customer's ongoing bill.

#### **14.6 Over-billing**

In every case of over-billing, the Service Provider will credit the Customer's account with all money incorrectly collected for the duration of the error, subject to the applicable limitation period provided by law. Simple interest on such over-billed amount, computed at the rate and at the times specified in Schedule B (Fees), will also be credited to the Customer's account.

#### **14.7 Under-billing**

Subject to Section 14.4 (Tampering/Fraud), in every case of under-billing the Service Provider will back-bill the Customer for the shorter of

- (a) the duration of the error;
- (b) six months; or
- (c) as set out in the Services Agreement between the Customer and the Service Provider, if any.

#### **14.8 Terms of Repayment**

Subject to Section 14.4 (Tampering/Fraud), in all cases of under-billing, the Service Provider will offer the Customer reasonable terms of repayment. If requested by the Customer, the repayment term will be equivalent in length to the back-billing period. The repayment will be interest free and in equal instalments corresponding to the normal billing cycle. However, delinquency in payment of such instalments will be subject to the usual late payment charges.

#### **14.9 Disputed Back-bills**

Subject to Section 14.4 (Tampering/Fraud), if a Customer disputes a portion of a back-billing due to under-billing based upon either consumption, demand or duration of the error, then the Service Provider will not threaten or cause the discontinuance of Services for the Customer's failure to pay that portion of the back-billing, unless there are no reasonable grounds for the Customer to dispute that portion of the back-billing. The undisputed portion of the bill will be

paid by the Customer and the Service Provider may threaten or cause the discontinuance of Services if such undisputed portion of the bill is not paid.

#### **14.10 Changes in Occupancy**

Subject to Section 14.4 (Tampering/Fraud), where changes of occupancy have occurred, the Service Provider will make a reasonable attempt to locate the former Customer who has been under-billed or over-billed. If, after a period of one year, such Customer cannot be located, then the applicable under-billing or over-billing will be cancelled.

### **PART 15: LATE PAYMENT AND RETURNED CHEQUE CHARGES**

#### **15.1 Late Payment Charge**

If the amount due for Services or any Service Related Charges on any bill has not been received in full by the Service Provider or by an agent acting on behalf of the Service Provider on or before the due date specified on the bill, and the unpaid balance is \$15 or more, then the Service Provider may include the late payment charge specified in Schedule B (Fees) in the next bill to the Customer.

#### **15.2 Returned Cheque Charge**

If a cheque received by the Service Provider from a Customer in payment of a bill is not honoured by the Customer's financial institution for any reason other than clerical error, then the Service Provider may include a charge specified in the Fees Schedule in the next bill to the Customer for processing the returned cheque, whether or not the Service has been disconnected in accordance with the provisions of this Bylaw.

#### **15.3 Collection as Taxes**

If the City is the Service Provider, then any amount due from a Customer for Services or any Service Related Charges that remains unpaid by December 31 of the year in which in the amount became due, will be added to the property taxes for the Designated Property in question and collected in the same manner and with the same remedies as property taxes.

### **PART 16: INTERRUPTION OF SERVICE**

#### **16.1 Regular Supply**

The Service Provider will use its reasonable efforts to provide the constant delivery of Energy and the maintenance of unvaried temperatures.

#### **16.2 Right to Restrict**

The Service Provider may require any of its Customers, at all times or between specified hours, to discontinue, interrupt or reduce to a specified degree or quantity, the use of Energy for any of the following purposes or reasons:

- (a) in the event of a temporary or permanent shortage of Energy, whether actual or perceived by the Service Provider;

- (b) in the event of a breakdown or failure of the DEU;
- (c) to comply with any legal requirements;
- (d) to make repairs or improvements to any part of the DEU;
- (e) in the event of fire, flood, explosion or other emergency to safeguard Persons or property against the possibility of injury or damage; or
- (f) for any other reason that the Service Provider considers necessary.

### **16.3 Notice**

The Service Provider will, to the extent practicable, give notice of any service limitations under Section 16.2 (Right to Restrict) to its Customers by:

- (a) newspaper, radio or television announcement; or
- (b) in accordance with Section 23.1.

### **16.4 Failure to Comply**

If, in the opinion of the Service Provider, a Customer has failed to comply with any requirement under Section 16.2 (Right to Restrict), then the Service Provider may, after providing notice to the Customer in the manner specified in Section 23.1 (Notice), discontinue Services to the Customer.

## **PART 17: DISCONTINUANCE OF SERVICES AND REFUSAL OF SERVICES**

### **17.1 Discontinuance With Notice and Refusal Without Notice**

Subject to applicable federal, provincial, and local government laws, statutes, regulations, bylaws, orders and policies, the Service Provider may discontinue Services to a Customer with at least 48 hours written notice to the Customer, or may refuse Services for any of the following reasons:

- (a) the Customer has not fully paid the Service Provider's bill and/or Service Related Charges with respect to Services on or before the due date;
- (b) the Customer or applicant has failed to furnish adequate security for billings by the specified date;
- (c) the Customer or applicant has failed to pay the Service Provider's bill and/or Service Related Charges in respect of another Designated Property on or before the due date;
- (d) the Customer or applicant occupies the Designated Property with another occupant who has failed to pay the Service Provider's bill and/or Service Related

Charges or furnish adequate security in respect of another Designated Property which was occupied by that occupant and the Customer at the same time;

- (e) the Customer or applicant is in receivership or bankruptcy, or operating under the protection of any insolvency legislation and has failed to pay any outstanding bills and/or Service Related Charges to the Service Provider;
- (f) the Customer has failed to apply for Services;
- (g) the Customer has failed to ensure that there is an adequate supply to the Designated Property of electricity required to operate the Heat Exchanger electrical pumps, whether by failure to pay utility bills or otherwise howsoever, with the result that electricity to the Designated Property has been reduced or interrupted and the proper operation all Heat Exchangers have been negatively affected; or
- (h) land or a portion thereof on which the Service Provider's facilities are, or are proposed to be, located contains contamination which the Service Provider, acting reasonably, determines has adversely affected or has the potential to adversely affect the Service Provider's facilities, or the health or safety of its workers or which may cause the Service Provider to assume liability for cleanup and other costs associated with the contamination. For the purposes of this Section, "contamination" means the presence in the soil, sediment or groundwater of special waste or another substance in quantities or concentrations exceeding criteria, standards or conditions established by the British Columbia Ministry of Water, Land and Air Protection or as prescribed by present and future laws, rules, regulations and orders of any other legislative body, governmental agency or duly constituted authority now or hereafter having jurisdiction over the environment.

## **17.2 Discontinuance or Refusal Without Notice**

Subject to applicable federal, provincial and local government laws, statutes, regulations, bylaws, orders and policies, the Service Provider may discontinue without notice or refuse the supply of Energy or Services to a Customer for any of the following reasons:

- (a) the Customer or applicant has failed to provide reference information and identification acceptable to the Service Provider, when applying for Services or at any subsequent time on request by the Service Provider;
- (b) the Customer has defective pipe, appliances, mechanical systems or Energy fittings in the Designated Property;
- (c) the Customer uses Energy in such a manner as in the Service Provider's opinion:
  - (i) may lead to a dangerous situation; or
  - (ii) may cause undue or abnormal fluctuations in the temperature of Energy in the DEU;

- (d) the Customer fails to make modifications or additions to the Customer's equipment which have been required by the Service Provider to prevent the danger or to control the undue or abnormal fluctuations described under paragraph (c);
- (e) the Customer breaches any of the terms and conditions upon which Services are provided to the Customer by the Service Provider;
- (f) the Customer fraudulently misrepresents to the Service Provider its use of Energy or the volume delivered;
- (g) the Customer vacates the Designated Property that is receiving the Services;
- (h) the Customer's Services Agreement is terminated for any reason; or
- (i) the Customer stops consuming Energy at the Designated Property.

## **PART 18: TERMINATION OF SERVICE AGREEMENT**

### **18.1 Termination by the Service Provider**

Subject to applicable federal, provincial and local government laws, statutes, regulations, bylaws, orders and policies, unless the Services Agreement specifies otherwise, the Service Provider may terminate a Services Agreement by giving the Customer at least 48 hours written notice if Services are discontinued under Section 17 (Discontinuance of Services and Refusal of Services).

### **18.2 Continuing Obligation**

The Customer is responsible for, and must pay for, all Energy delivered to the Customer's Designated Property until the Services Agreement is terminated and is responsible for all damage to and loss of Heat Exchangers, Meter Sets or other equipment of the Service Provider on the Designated Property.

### **18.3 Effect of Termination**

Termination of a Services Agreement does not release the Customer from any obligations under the Services Agreement which expressly or by their nature survive the termination of the Services Agreement;

### **18.4 Sealing Service Connection**

After the termination of Services to a Designated Property and after a reasonable period of time during which a new Customer has not applied for Services at the Designated Property, the Service Provider may seal off the Service Connection to the Designated Property.

## **PART 19: LIMITATIONS ON LIABILITY**

### **19.1 Responsibility for Delivery of Energy**

The Service Provider, and the City if the City is not the Service Provider, and their respective elected officials, directors, officers, employees, servants, contractors, representatives and agents are not responsible or liable for any loss, damage, costs or injury (including death) incurred by any Customer or any Person claiming by or through the Customer caused by or resulting from, directly or indirectly, any discontinuance, suspension or interruption of, or failure or defect in the supply or delivery or transportation of, or refusal to supply, deliver or transport Energy, or provide Services, unless the loss, damage, costs or injury (including death) is directly attributable to the gross negligence or wilful misconduct of the Service Provider or the City if the City is not the Service Provider, and their respective elected officials, directors, officers, employees, servants, contractors, representatives and agents provided, however, that the Service Provider and the City if the City is not the Service Provider, and their respective elected officials, directors, officers, employees, servants, contractors, representatives and agents are not responsible or liable for any loss of profit, loss of revenues, or other economic loss even if the loss is directly attributable to the gross negligence or wilful misconduct of the Service Provider or the City if the City is not the Service Provider, or their respective elected officials, directors, officers, employees, servants, contractors, representatives and agents.

### **19.2 Responsibility Before and After Delivery Point**

The Customer is responsible for all expense, risk and liability for:

- (a) the use or presence of Energy, being delivered from the DEU to a Customer's Designated Property, before it passes the Delivery Point in the Customer's Designated Property;
- (b) the use or presence of Energy, being returned from a Customer's Designated Property to the DEU, after it passes the Delivery Point in the Customer's Designated Property; and
- (c) the Service Provider-owned and City-owned facilities serving the Customer's Designated Property,

if any loss or damage caused by or resulting from failure to meet that responsibility is caused, or contributed to, by the act or omission of the Customer or a Person for whom the Customer is responsible.

### **19.3 Responsibility After Delivery Point**

The Customer is responsible for all expense, risk and liability with respect to the use or presence of Energy being delivered to the Customer's Designated Property after it passes the Delivery Point.

#### **19.4 Responsibility for Heat Exchanger and Meter Set**

The Customer is responsible for all expense, risk and liability with respect to all Heat Exchangers, Meter Sets or related equipment at the Customer's Designated Property unless any loss or damage is:

- (a) directly attributable to the negligence of the Service Provider, its employees, contractors or agents; or
- (b) caused by or resulting from a defect in the equipment. The Customer must prove that negligence or defect.

For greater certainty and without limiting the generality of the foregoing, the Customer is responsible for all expense, risk and liability arising from any measures required to be taken by the Service Provider to ensure that the Heat Exchangers, Meter Sets or related equipment on the Customer's Designated Property are adequately protected, as well as any updates or alterations to the Service Connection(s) on the Customer's Designated Property necessitated by changes to the grading or elevation of the Customer's Designated Property or obstructions placed on such Service Connection(s).

#### **19.5 Customer Indemnification**

The Customer will indemnify and hold harmless the Service Provider, and the City if not the Service Provider, and their respective employees, contractors and agents from all claims, loss, damage, costs or injury (including death) suffered by the Customer or any Person claiming by or through the Customer or any third party caused by or resulting from the use of Energy by the Customer or the presence of Energy in the Customer's Designated Property, or from the Customer or Customer's employees, contractors or agents damaging the Service Provider's or the City's facilities.

### **PART 20: OFFENCES UNDER BYLAW**

#### **20.1 Offence**

A person who:

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

is guilty of an offence against this Bylaw and liable to the penalties imposed under this Section.

**20.2 Fine for offence**

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 6.8 that results in fouling of the Heat Exchangers is liable to a fine of not less than \$2000.00 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 Bylaw is liable to a fine of not less than \$500.00 for each offence.

**20.3 Fine for continuing offence**

Each day that an offence continues is a separate offence.

**20.4 Tampering with DEU**

A person must not tamper, interfere with, damage, or destroy any part of the DEU.

**PART 21: BUILDING PERMIT REQUIREMENTS FOR DEU  
COMPATIBLE BUILDING MECHANICAL SYSTEMS****21.1 Building Permit Application**

A person who applies, under the Building Regulation Bylaw, 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 located on a Designated Property;
- (b) a duly signed section 219 covenant and a statutory right of way in accordance with section 6.6 of this Bylaw, to be registered against title to the Designated Property prior to building permit being issued;
- (c) an energy modelling report showing peak loads and hour by hour consumption, signed by the registered professional who is responsible for design of the building mechanical system;
- (d) a cheque in the amount of the service connection installation fee specified in Schedule B (Fees);
- (e) the proposed location of the Heat Exchanger and Meter Set;
- (f) the proposed location of Distribution System components in or on the Designated Property;
- (g) the proposed location of the Delivery Points;



- (h) the proposed schedule for installation or alteration of the building mechanical system;
- (i) the proposed commencement date for the delivery of Energy by the Service Provider to the Heat Exchanger and Meter Set; and
- (j) such other information as the Service Provider or City Engineer may require.

### **21.2 Submission of copy of application**

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

### **21.3 Approval of Estimations**

The report submitted under section 21.1(c) is subject to approval by the City Engineer.

### **21.4 Approval of Locations - General**

The location of each of the:

- (a) Heat Exchanger and Meter Set, submitted under section 21.1(e);
- (b) Distribution System components in or on the Designated Property, submitted under section 21.1(f); and
- (c) Delivery Points, submitted under section 21.1(g);

is subject to approval by the Director, Building Approvals and City Engineer.

### **21.5 Approval of Locations – Costs**

If:

- (a) the location which the applicant proposes for the Heat Exchanger and Meter Set, Distribution System components in or on the Designated Property, or Delivery Points would be acceptable to the Director, Building Approvals and City Engineer except for increased costs the City would incur to install the Heat Exchanger and Meter Set, Distribution System components and Delivery Points 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 Director, Building Approvals and City Engineer may approve the location.

**21.6 Approval of schedule**

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

**21.7 Design of building mechanical system**

The design of the building mechanical system is subject to approval by the Director, Building Approvals and City Engineer.

**21.8 Approval of building permit**

The building permit is subject to approval by the:

- (a) Director, Building Approvals under the Building Regulation Bylaw; and
- (b) Director, Building Approvals and City Engineer under this By-law.

**21.9 No work before permit issuance**

A person must not begin to install or alter a building mechanical system until the Director, Building Approvals has issued the building permit.

**PART 22: DESIGN AND INSTALLATION OR ALTERATION OF BUILDING MECHANICAL SYSTEM****22.1 Integration with DEU**

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

**22.2 Prohibited components**

A building mechanical system must utilize the DEU for not less than 70% of all the annual space heating and cooling and domestic hot water requirements for a building on a Designated Property as determined in the energy modelling report required under section 21.1(c), except that:

- (a) an owner who is constructing a new building or altering an existing building may incorporate, as part of the building mechanical system, a solar system to generate heat energy or equipment to acquire waste heat energy from the refrigeration or cooling system of the building or of another building in the vicinity, for the purpose of supplementing the heat energy provided by the energy utility system;
- (b) a person who is altering an existing building may retain components otherwise prohibited under this section 22.2 to the extent permitted by the Director, Building Approvals under the Building Regulation By-law or by the Director, Building Approvals and City Engineer under this By-law;
- (c) unless pre-approved in writing by the City Engineer, in-suite gas fireplaces are not permitted; and

- (d) unless pre-approved in writing by the City Engineer, gas make-up air units are not permitted.

### **22.3 Scheduling**

An applicant must:

- (a) ensure that installation of the building mechanical system proceeds in accordance with the schedule approved under section 21.6, and any changes to the schedule approved under this section 22.3; and
- (b) advise the Director, Building Approvals 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 Director, Building Approvals and City Engineer.

### **22.4 Service Provider's scheduling**

To the extent the City Engineer and Service Provider consider it necessary, convenient, or financially prudent, the Service Provider is to co-ordinate its schedule for construction of any Distribution System components, Heat Exchangers and Meter Sets for a Designated Property with the applicant's schedule for installation or alteration of the building mechanical system.

### **22.5 Approval of installation or alteration of work**

Completion of the installation or alteration of a building mechanical system is subject to approval by the Director, Building Approvals and City Engineer under this Bylaw.

### **22.6 Adjustment of increased installation costs**

Upon completion by the City of installation of the Heat Exchangers, Meter Sets and Distribution System components or either of them in a location under section 21.5:

- (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 21.5 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.

### **22.7 No occupancy allowed**

An Owner is not entitled to final building inspection allowing occupancy under the Building Regulation Bylaw for a building on a Designated Property until the City Engineer has given approval under section 22.5, and the Owner has paid the City any shortfall under section 22.6(a).

## **PART 23: MISCELLANEOUS AND GENERAL PROVISIONS**

### **23.1 Service of Notices**

All written notice to be given under this Bylaw may be:

- (a) sent via registered mail to the Customer's billing address or the to address of the Owner shown on the assessment roll prepared pursuant to the *Assessment Act*;
- (b) if the notice refers to real property, by posting it on the real property;
- (c) delivered by hand to the addressee thereof;
- (d) sent by facsimile or e-mail to the addressee thereof,

and any such notice given as aforesaid will be deemed to have been given, in the case of delivery by hand, when delivered, in the case of facsimile transmission or e-mail, when a legible facsimile or e-mail is received by the recipient if received before 5:00 p.m. on a day other than a Saturday, Sunday or statutory holiday in the Province of British Columbia or Canada (a “**business day**”), or on the next business day if such facsimile or e-mail is received on a day which is not a business day or after 5:00 p.m. on a business day, in the case of delivery by registered mail, , on the date received, and in the case of posting on property, at the time of posting. In the event of discontinuance of postal service due to strike, lockout, labour disturbance or otherwise, notices shall be delivered by hand or facsimile transmission or e-mail.

### **23.2 Notice of Violation**

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 Bylaw; or
- (b) carry out any work or do anything to bring a building mechanical system into conformity with this Bylaw,

within the time specified in such notice.

### **23.3 Unauthorised Sale, Supply or Use**

Unless authorized in writing by the Service Provider, a Customer will not sell or supply the Energy supplied to it by the Service Provider to other Persons or use the Energy supplied to it by the Service Provider for any purpose other than as specified in the Services Agreement and this Bylaw.

### **23.4 Taxes**

The rates and charges specified in the applicable Schedules hereto do not include any local, provincial or federal taxes, assessments or levies imposed by any competent taxing authorities

which the Service Provider may be lawfully authorized or required to add to its normal levies, rates and charges or to collect from or charge to the Customer.

**23.5 Conflicting Terms and Conditions**

Where anything in this Bylaw conflicts with the provisions of another bylaw adopted by the City or conflicts with special terms or conditions specified under a Services Agreement, then the terms or conditions specified under this Bylaw govern.

**23.6 Authority of Agents of the Service Provider**

No employee, contractor or agent of the Service Provider has authority to make any promise, agreement or representation not incorporated in this Bylaw or in a Services Agreement, and any such unauthorized promise, agreement or representation is not binding on the Service Provider.

**23.7 Additions, Alterations and Amendments**

This Bylaw and its Schedules may be added to, cancelled, altered or amended by Council from time to time.

FIRST READING

\_\_\_\_\_

SECOND READING

\_\_\_\_\_

THIRD READING

\_\_\_\_\_

ADOPTED

\_\_\_\_\_

\_\_\_\_\_  
MAYOR

\_\_\_\_\_  
CORPORATE OFFICER

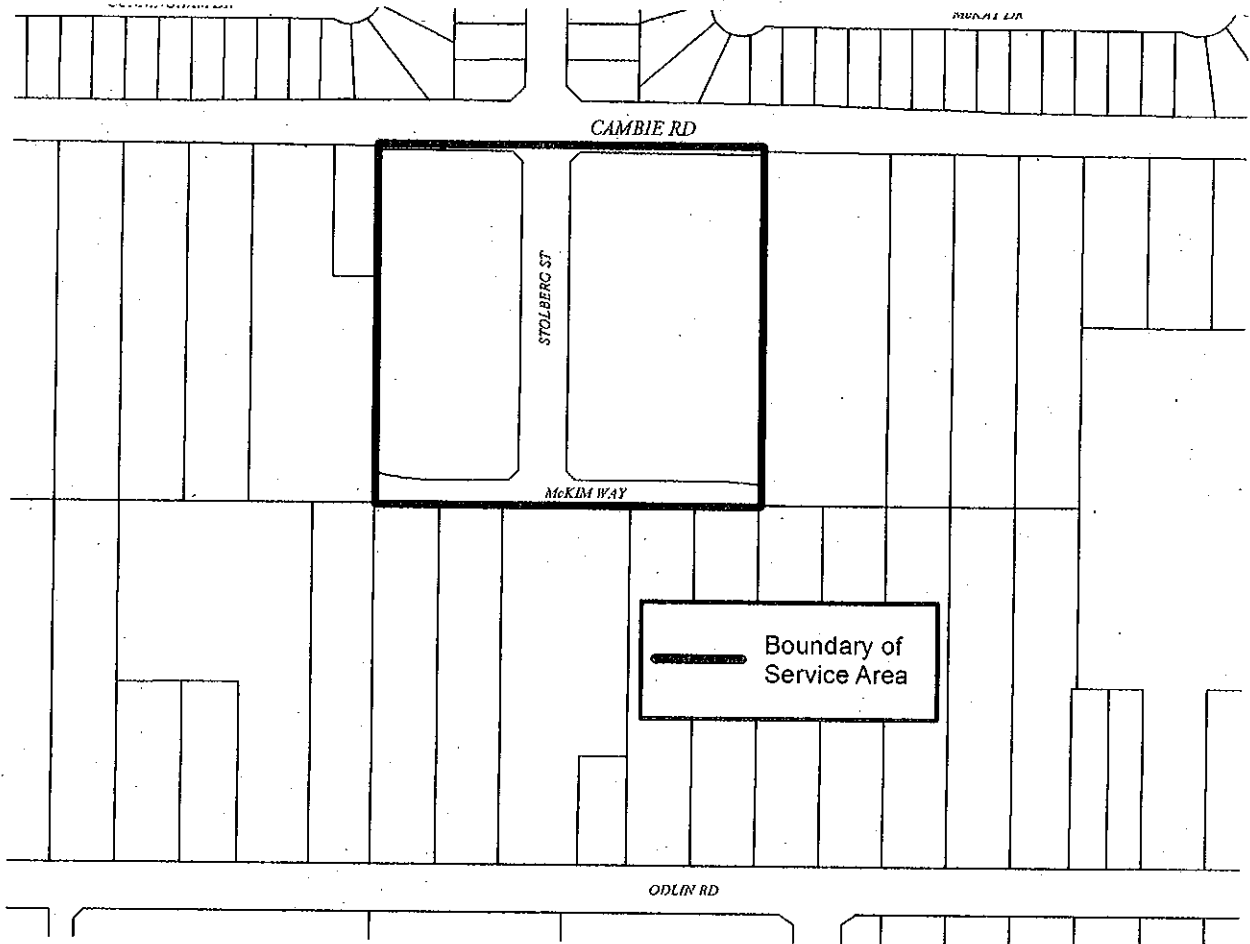
CITY OF RICHMOND
APPROVED for content by originating dept.
APPROVED for legality by Solicitor

Re: Item #2 GP Committee  
November 15, 2010  
Bylaw No. 8641

\* Due to photocopying error  
Schedule 'A' was not included  
in the General Purposes agenda Page 30

### SCHEDULE "A"

#### Boundaries of Service Area



**SCHEDULE B****Fees**

Section	Application	Fee
3.2	Application for voluntary use of energy utility system	by estimate
6.1	Service Connection Installation Fee	by estimate
6.8	Service call during city's normal business hours	\$150
6.8	Service call outside city's normal business hours	\$400
7.3	Application for meter test	\$400
7.8	Application to remove, relocate, or alter energy transfer station or distribution system extension servicing	\$400
10.3	Reactivation fee	by estimate
10.4	Re-identification of Meter Set	by estimate
11.2	Application for service to Designated Property	no charge
12.2 & 14.6	Interest on security deposit and over-billed amounts	Bank of Canada prime rate minus 2 % per annum payable monthly
15.1	Late Payment Charge	\$100
15.2	Cheque returned to the city	\$100
21.1	Building permit application that includes building mechanical system in addition to building permit application fee under Building Regulation Bylaw	2% of the Building Permit Fee

**SCHEDULE C**

**Rates and Charges**

**RATES FOR SERVICES**

The following charges, as amended from time to time, will constitute the Rates for Services:

- (a) capacity charge - a monthly charge of \$0.08 per square foot of gross floor area;  
and
- (b) volumetric charge – a monthly charge of \$0.00 per kilowatt hour of Energy returned from the Heat Exchanger and Meter Set at the Designated Property.