



General Purposes Committee

Anderson Room, City Hall
6911 No. 3 Road

Tuesday, April 22, 2014
4:00 p.m.

Pg. # ITEM

MINUTES

- GP-4** *Motion to adopt the **minutes** of the meeting of the General Purposes Committee held on Monday, April 7, 2014.*



DELEGATION

1. Carol Mason, Chief Administrative Officer, Metro Vancouver, to provide an update on Metro Vancouver operations and activities.

LAW & COMMUNITY SAFETY DEPARTMENT

2. **SISTER CITY ADVISORY COMMITTEE 2013 YEAR IN REVIEW**
(File Ref. No. 01-0100-30-SCIT1-01) (REDMS No. 4195921, 4165841)

GP-8

See Page GP-8 for full report

Designated Speaker: Amarjeet Rattan

STAFF RECOMMENDATION

That the Sister City Advisory Committee 2013 Year in Review, attached to the staff report dated March 27, 2014, from the Director, Intergovernmental Relations and Protocol Unit, be received for information.



FINANCE AND CORPORATE SERVICES DEPARTMENT

3. **2014 ANNUAL PROPERTY TAX RATES BYLAW**
(File Ref. No. 03-0925-01; 12-8060-20-009131) (REDMS No. 4173487)

GP-18

See Page GP-18 for full report

Designated Speaker: Ivy Wong

STAFF RECOMMENDATION

That the Annual Property Tax Rates (2014) Bylaw No. 9131 be introduced and given first, second and third reading.



4. **OPTIONS FOR THE 2014 GENERAL LOCAL ELECTION**
(File Ref. No. 12-8125-70-01) (REDMS No. 4167537 v.3)

GP-29

See Page GP-29 for full report

Designated Speaker: David Weber

STAFF RECOMMENDATION

That:

- (1) based on the option selected, staff be authorized to take all necessary steps to conduct and make arrangements for the 2014 General Local Election;*
- (2) staff bring forward any appropriate bylaw amendments, as required, pertaining to the 2014 General Local Election; and*
- (3) one-time additional funding be approved from the General Contingency Account, in the amount corresponding to the option selected.*



ENGINEERING AND PUBLIC WORKS DEPARTMENT

5. **RIVER GREEN DISTRICT ENERGY UTILITY SERVICE AREA BYLAW NO. 9134**
(File Ref. No. 12-8060-20-009134) (REDMS No. 4197098 v.5)

GP-47

See Page GP-47 for full report

Designated Speaker: Peter Russell

Pg. #

ITEM

STAFF RECOMMENDATION

That the River Green District Energy Utility Service Area Bylaw No. 9134, presented in the staff report titled River Green District Energy Utility Service Area Bylaw No. 9134 dated April 17, 2014, from the Director, Engineering be introduced and given first, second and third reading.

☐

ADJOURNMENT

☐



General Purposes Committee

Date: Monday, April 7, 2014

Place: Anderson Room
Richmond City Hall

Present: Mayor Malcolm D. Brodie, Chair
Councillor Chak Au
Councillor Evelina Halsey-Brandt
Councillor Ken Johnston
Councillor Bill McNulty
Councillor Harold Steves

Absent: Councillor Linda Barnes
Councillor Derek Dang
Councillor Linda McPhail

Call to Order: The Chair called the meeting to order at 4:00 p.m.

MINUTES

It was moved and seconded

That the minutes of the meeting of the General Purposes Committee held on Monday, March 17, 2014, be adopted as circulated.

CARRIED

DELEGATION

1. With the aid of a PowerPoint presentation, Councillor Bill Harper, New Westminster City Council, accompanied by Eugene Wat, Manager of Infrastructure Planning, spoke to the City of New Westminster's perspective on replacing the Pattullo Bridge and highlighted the following:
 - rehabilitation of the Pattullo Bridge was not a viable option due to its seismic vulnerability, lack of structural integrity, and exposure to river scour;

1.

General Purposes Committee

Monday, April 7, 2014

- New Westminster's policy is to work towards the principle of no new added capacity in the transportation system for vehicles passing through the City;
- over the last decade, historical data indicated a declining or stable trend in daily traffic on the Pattullo Bridge;
- the Pattullo Bridge has become known as the free alternative to the newly tolled Port Mann Bridge, and as such, it has seen an increase of approximately 6,000 to 12,000 crossings per day;
- increased capacity for the Pattullo Bridge is not contemplated in the City of New Westminster's and the City of Surrey's Official Community Plans or in Metro Vancouver's Regional Growth Strategy;
- the expansion of the Pattullo Bridge is not consistent with TransLink's policies for priority to be given to rapid transit, cycling, and pedestrian infrastructure;
- the City of New Westminster is a dense urban centre with no room to accommodate the expansion of its existing transportation system;
- the City of New Westminster wishes to see the Pattullo Bridge replaced by a four lane bridge that is tolled; a toll would aid in financing such a project, while discouraging discretionary travel across the bridge;
- the City of New Westminster is requesting that the Province (i) re-allocate \$600 million earmarked for two additional lanes on the Pattullo Bridge towards additional rapid transit infrastructure, (ii) provide direct connection from the South Fraser Perimeter Road to the Port Mann Bridge, and (iii) reduce the Port Mann Bridge tolls; and
- the City of New Westminster is seeking support for a resolution for the proposed Pattullo Bridge Replacement Project.

Discussion ensued regarding (i) revisions to the Ministry of Transportation and Infrastructure (MOTI) "Guidelines for Tolling" and the feasibility of road pricing, (ii) the Massey Tunnel Replacement proposal, (iii) traffic impacts related to expansion at the Vancouver International Airport and Port Metro Vancouver facilities, (iv) the possibility of extending the operating hours for Port Metro Vancouver in order to mitigate traffic flow during peak periods including premiums for peak deliveries, (v) expanding short sea shipping, and (vi) the need for a Regional Transportation Strategy.

In response to queries from Committee, Councillor Harper and Mr. Wat provided the following additional information:

- an affordable and equitable regional road pricing structure may be a viable alternative to tolling;

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- business operating hours and ambiguous surcharge provisions in the current tolling guidelines were identified as challenges to reducing commercial traffic during peak hours;
- during preliminary discussions, the City of New Westminster supported rehabilitating the existing Pattullo Bridge; however, TransLink was not in favour of this option;
- weight restrictions on routes through New Westminster must be approved by TransLink; and
- it is anticipated that future structures and connections for a potential new bridge will be designed to reflect the City of New Westminster's urban and cohesive neighbourhoods.

As a result of the discussion, the following **referral** was introduced:

It was moved and seconded

- (1) *That the City of New Westminster's report titled "A Reasonable Approach: A Perspective on the Pattullo Bridge" and resolution be referred to staff for analysis and comment; and*
- (2) *That staff arrange for a delegation from the City of Surrey on the replacement of the Pattullo Bridge.*

The question on the referral was not called as discussion ensued regarding the development of infrastructure that will not address regional concerns and priorities related to rapid transit, cycling, and pedestrian options. Committee expressed the view that an integrated transportation solution to examine (i) traffic configurations and diversions, (ii) tolling policies, and (iii) other regional concerns was required. The question on the referral was then called and it was **CARRIED**.

ADJOURNMENT

It was moved and seconded

That the meeting adjourn (4:54 p.m.).

CARRIED

General Purposes Committee
Monday, April 7, 2014

Certified a true and correct copy of the Minutes of the meeting of the General Purposes Committee of the Council of the City of Richmond held on Monday, April 7, 2014.

Mayor Malcolm D. Brodie
Chair

Heather Howey
Committee Clerk



City of Richmond

Report to Committee

To: General Purposes Committee

Date: March 27, 2014

From: Amarjeet S. Rattan
Director, Intergovernmental Relations & Protocol
Unit

File: 01-0100-30-SCIT1-
01/2014-Vol 01

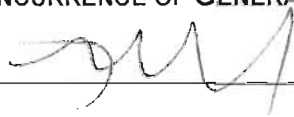


Re: **Sister City Advisory Committee 2013 Year In Review**

Staff Recommendation

That the Sister City Advisory Committee 2013 Year in Review, attached to the report dated March 27, 2014, from the Director, Intergovernmental Relations and Protocol Unit, be received for information.

Amarjeet S. Rattan
Director, Intergovernmental Relations & Protocol Unit
(604-247-4686)

Att. 1

REPORT CONCURRENCE	
CONCURRENCE OF GENERAL MANAGER 	
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS: 
APPROVED BY CAO 	

Staff Report

Origin

This report presents the Sister City Advisory Committee (SCAC) 2013 Year in Review Report, which supports Council Term Goal 6.6:

Development of protocols, role definitions and communication approaches with our Friendship and Sister Cities.

Findings of Fact

The primary purpose of the City of Richmond's Sister City Program is to foster mutual understanding and meaningful cultural connections with designated Sister/Friendship cities in the interests of our citizens for their common benefit.

The specific objectives of the Sister City Program are:

- To establish and maintain relationships with designated Sister/Friendship Cities that are meaningful and sustained through on-going activity;
- To develop a broad base of activity for Sister/Friendship City relationships in which many people and organizations in the community participate through planned and on-going contact; and
- To engage the Richmond community and its Sister/Friendship Cities in projects and exchanges that promote cultural awareness and joint learning opportunities.

The City of Richmond has enjoyed a Sister City relationship with Pierrefonds, Quebec since 1967 and Wakayama, Japan since 1973. The City of Richmond formed a Friendship City relationship with Qingdao, China in 2008 and a Sister City relationship with Xiamen in 2012.

The SCAC activities and events during 2013 are outlined in Attachment 1.

Some of the highlights for 2013 include:

- *Updated Policy and Procedures, Terms of Reference and Program Objectives for the Sister City Program:* Thirteen SCAC members are appointed by Council for two year terms. Each member will be limited to serving on the SCAC for a maximum of four consecutive terms (eight years).
- *Visit and performance by the Wakayama Children's Choir:* The choir consisted of 43 students from Wakayama, Japan, aged 13 to 18 years. They were joined by members of the Richmond Youth Honour Choir in a community performance at Richmond Pentecostal Church.
- *City of Richmond Official Delegation visit to Wakayama, Japan:* 2013 marked the 40th anniversary of Richmond's Sister City relationship with Wakayama, Japan. To commemorate this auspicious occasion, a delegation from Wakayama visited Richmond in early November 2012, and a Richmond delegation visited Wakayama, Japan in April 2013.

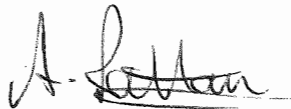
- *Dinner receptions with Consul General of Japan and Consul General of China:* The SCAC is developing closer working relations with the Consulate General offices of Japan and China, with respect to our Sister/Friendship cities in these countries.
- *Visit and performance by the world famous Qingdao Xiabaiyan Art School:* In October, this children's group performed for a community audience of 800 at the River Rock Show Theatre. A delegation of officials from the Qingdao Foreign Affairs Office also visited the City in conjunction with the art school performance.

Financial Impact

No financial impact.

Conclusion

The 2013 Sister City Advisory Committee activities and events provide a foundation to further strengthen the existing Friendship and Sister City relationships.



Amarjeet S. Rattan
Director, Intergovernmental Relations & Protocol Unit
(604-247-4686)

AR:ar

Att. 1

City of Richmond

Sister City Advisory Committee 2013 Year in Review

2013 Summary:

2013 was another busy year for the Sister City Committee. The committee manages the relationships with three official Sister Cities: Wakayama, Japan (since 1973), Pierrefonds, Quebec (since 1967) and Xiamen, China (since 2012); as well as one Friendship City: Qingdao, China (since 2008).

Committee Members:

Chair
Vice-Chair, Wakayama
Vice-Chair, Xiamen
Vice-Chair, Qingdao
Vice Chair, Pierrefonds
Members

Hans Havas
 Jim Kojima
 Weiping Liu
 Cindy Wang
 Francis Turmeau
 Wei Liu
 Corinna Chan
 Amy Yu
 Andrea Dulay
 Kevin Lainchbury
 Gayle Morris
 Howard Smythe
 Juliana Yung

Council Liaison

Councillor Ken Johnston
 Councillor Linda Barnes (Alternate)

School Board Liaison

Eric Yung
 Debbie Tablotney (Alternate)

January

- Updated Policy and Procedures, Terms of Reference and Program Objectives for the Sister City Program.

February

- Committee appointments with term ending December 31, 2012 were extended to March 31, 2013.

March

- Council appointed six new committee members.

April

- Commenced work on the Three Year Activity Plan for 2014 – 2016.
- Dinner reception at Consul General of Japan residence.
- A visit of the Wakayama Children's Choir, April 29 to May 3. The group consisted of 43 children and six adults.
- Wakayama Children's Choir held a concert at the Richmond Pentecostal Church.
- City of Richmond Official Delegation visit to Wakayama, Japan to commemorate the 40th Anniversary of our Sister City relationship.



Wakayama Children's Choir Visit ~ Tour of Stanley Park



**Wakayama Children's Choir Performance at
Richmond Pentecostal Church**



Dinner reception with Japan Consul General, Seiji Okada



City of Richmond Official Delegation visit to Wakayama, Japan to commemorate the 40th Anniversary of our Sister City relationship

May

- Sister City Advisory Committee elected Vice Chairs for Wakayama, Pierrefonds, Xiamen and Qingdao.

June

- Dinner reception at Consul General of China residence.



Mayor Malcolm Brodie with China Consul General, LIU Fei

July

- The SCAC participated in the annual Steveston Salmon Festival Parade.



September

- In commemoration of the 45th Anniversary (2012) of the Sister City relationship with Pierrefonds, the City of Richmond received a painting gift from Mayor Monique Worth (on display in the Councillors office area).



October

- Qingdao Xiabaifan Art School came to Richmond October 3 – 5, 2013.
The special performance titled *“From East to West”* held at the River Rock Show Theatre on October 5, of the world famous dance school from Qingdao, commemorates five years of official friendship status with the City of Qingdao and attracted approximately 820 people in attendance.



Qingdao Xiabaifan Art School Reception and Performance



City of Richmond

Report to Committee

To: General Purposes Committee

Date: April 2, 2014

From: Jerry Chong
Director, Finance

File: 03-0925-01/2014-Vol
01

Re: 2014 Annual Property Tax Rates Bylaw

Staff Recommendation

That the Annual Property Tax Rates (2014) Bylaw No. 9131 be introduced and given first, second and third readings.

Jerry Chong
Director, Finance
(604-276-4064)

REPORT CONCURRENCE	
CONCURRENCE OF GENERAL MANAGER 	
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS:
APPROVED BY CAO 	

Staff Report

Origin

Section 197 of the Community Charter requires municipalities to establish property tax rates for the current year after the adoption of the *5 Year Financial Plan* and before May 15th. Council must, under subsection 197(3.1), consider the tax distribution to each assessment class prior to adopting the tax rate bylaw.

Analysis

BC Assessment provides assessment values that reflect the market condition as of July 1st of the previous year. In 2014, average residential assessment values for Richmond's single family dwellings changed between -10% to 0%, while multi-family strata properties changed between -5% to 0%. In comparison, residential properties in the South Fraser region had changes in the -5% to +5% range.

Table 1 provides a comparison between 2013 and 2014 market value changes and 2014 new growth. New growth is the term used for new developments, properties shifting between assessment classes, and any new exemptions. New developments add taxable value to the class while new exemptions reduce the value to that class.

Table 1: Comparison of Assessment Values 2013- 2014

	(1) 2013 Total Assessment Value	(2) 2014 Total Assessment Value	(3) 2014 Market Value	(4) 2014 Net Market Change	(5) 2014 New Growth	(6) % Net Market Change
Class 01 - Residential	44,663,439,117	44,464,212,240	43,387,287,365	-1,276,151,752	1,076,924,875	-2.86%
Class 02 - Utilities	23,063,706	20,887,585	20,770,785	-2,292,921	116,800	-9.94%
Class 04 - Major Industry	115,791,500	125,715,900	125,416,200	9,624,700	299,700	8.31%
Class 05 - Light Industry	1,902,601,800	2,100,088,500	2,151,439,382	248,837,582	-51,350,882	13.08%
Class 06 - Business	8,197,372,113	9,001,342,413	8,869,618,403	672,246,290	131,724,010	8.20%
Class 08 - Seasonal/Rec	120,715,100	97,337,700	112,954,700	-7,760,400	-15,617,000	-6.43%
Class 09 - Farm	26,618,073	26,112,095	26,657,280	39,207	-545,185	0.15%
Total	55,049,601,409	55,835,696,433	54,694,144,115	-355,457,294	1,141,552,318	-0.65%

Comparing to the prior year, total market value decreased by \$355 million (column 4) or 0.65% in 2014. A breakdown of the change by assessment class shows that residential market values decreased by \$1.276 billion or 2.86% while Major Industry, Light Industry and Business classes all showed increases in market value.

Total new growth (column 5) in 2014 is approximately \$1.142 billion with \$1.077 billion or 94% of the growth resulting from new residential developments.

2014 Tax Rate Calculation

Under the Community Charter, Council must review the City's property tax distribution prior to adopting the annual property tax rate bylaw. In the City's *5 year Financial Plan*, the stated objective in property tax distribution is to maintain the business to residential tax ratio in the middle

in comparison to other municipalities in the comparator group and to ensure that the City remains competitive in attracting and retaining businesses.

Tax Ratio

Tax ratio is a direct comparison of the tax rates between all classes against residential tax rates. Table 2 provides the 2013 tax rates and business to residential ratio ranking for comparative municipalities. Richmond's business to residential tax ratio of 3.59 was 3rd lowest in comparison.

Table 2: Comparison of 2013 Business to Residential Ratios

Municipalities	Residential	Utilities	Major Industry	Light Industry	Business	Recreation Non-Profit	Farm	Business to Residential Ratio
Coquitlam	3.0560	40.0000	29.1984	13.5994	13.7554	14.7395	17.2428	4.50
Vancouver	1.8950	36.3614	32.9809	8.2042	8.2042	1.8159	1.8159	4.33
Burnaby	2.2419	34.3515	44.9518	9.4612	9.4612	1.4799	9.4612	4.22
Richmond	2.1225	39.9125	14.4282	8.1337	7.6285	1.9637	12.2583	3.59
Delta	3.3150	39.9922	33.8031	10.6329	10.6329	7.2122	17.5923	3.21
Surrey	2.3791	33.0182	11.4101	6.2556	6.9880	2.2950	2.5857	2.94

Tax Distribution

Based on the 2014 Revised Roll, the 2014 calculated tax rates, assessment ratios, folio counts, tax distribution and tax ratios are as follows:

Table 3 – Breakdown of 2014 Assessments and Tax Distribution

2014 Assessments and Tax Distribution					
	Tax Rates	Assessment Ratio	Folio Count	Tax Distribution	Tax Ratio
Class 01 - Residential	2.249560	79.63%	67,186	54.36%	1.00
Class 02 - Utilities	39.912450	0.04%	119	0.45%	17.74
Class 04 - Major Industry	13.715270	0.23%	27	0.94%	6.10
Class 05 - Light Industry	7.286820	3.76%	620	8.32%	3.24
Class 06 - Business	7.286820	16.12%	6,793	35.64%	3.24
Class 08 - Seasonal/Rec	2.160690	0.17%	445	0.11%	0.96
Class 09 - Farm	12.602530	0.05%	679	0.18%	5.60
Total	N/A	100.00%	75,869	100.00%	N/A

For comparison purposes, the 2013 assessment ratios and tax distributions is provided in Table 4.

Table 4 – Breakdown of 2013 Assessments and Tax Distribution

2013 Assessments and Tax Distribution					
	Tax Rates	Assessment Ratio	Folio Count	Tax Distribution	Tax Ratio
Class 01 - Residential	2.12246	81.13%	65,585	53.87%	1.00
Class 02 - Utilities	39.91246	0.04%	111	0.52%	18.80
Class 04 - Major Industry	14.42822	0.21%	26	0.95%	6.80
Class 05 - Light Industry	8.13367	3.46%	623	8.79%	3.83
Class 06 - Business	7.62851	14.89%	6,428	35.54%	3.59
Class 08 - Seasonal/Rec	1.96366	0.22%	449	0.14%	0.93
Class 09 - Farm	12.25825	0.05%	680	0.19%	5.78
Total	N/A	100.00%	73,902	100.00%	N/A

- The proposed 2014 residential tax rate increase is \$0.1271 for every \$1000 of assessment. This increase is required due to the lower average assessment value and Council's approved overall tax increase for 2014. When average assessment values decrease from prior year, the City must adjust the prior year's tax rates higher in order to collect the same amount of taxes in the current year. Once that adjustment is made, rates are then adjusted for the announced tax increase.
- The number of residential folios increased by 1,601 units from 65,585 in 2013 to 67,186 in 2014. New growth in residential value increased by \$1.076 billion. Of this amount, a portion of the value is due to residential projects that are still under construction and not yet included in the folio count. As a result of the new growth, tax distribution for the residential class increased by 0.49% from 53.87% in 2013 to 54.36% of total taxes.
- In 2014, the province's school tax credit for class 5 – Light Industry will be completely phased out, making it more costly for light industries to operate. Historically, Richmond's tax rates for class 5 properties were slightly higher than the rates for class 6 – Business. With the elimination of the tax credit and a higher tax rate, many businesses with class 5 assessment will be appealing to BC Assessment for a class change. To minimize potential tax losses to the City as a result of future tax appeals and to recognize the fact that City services provided to both classes are similar, class 5 and class 6 tax rates are purposely adjusted to be the same rate by shifting approximately \$250,000 in taxes from class 5 to class 6. This change will put the City in line with other comparator municipalities who also set the same rates for class 5 and class 6.
- Total tax burden for class 6 - Business increased by 0.1% to 35.64% in 2014. Aside from the \$250,000 tax shift from class 5 to class 6, there was also new growth of 365 folios to this class in 2014. The resulting tax ratio is 3.24, a reduction of .35 from prior year's ratio.

- Appendix 1 (attached) provides the various 2013 tax rates for the comparator group. Richmond's tax rates were consistently in the middle or amongst the lowest in comparison to the group. Comparing 2014 rates with Appendix 1, Richmond should be able to maintain the favourable tax position relative to the comparator group.

Financial Impact

Property tax rates provided in Bylaw 9131 will generate the approximate \$184 million in municipal taxes (subject to subsequent appeal settlements in 2014) necessary to balance the 2014 budget.

Conclusion

Richmond's property tax rates have consistently remained in the middle or amongst the lowest in the comparator group. The proposed rates in Bylaw 9131 will generate the necessary taxes to balance the 2014 budget and to maintain the current level of service.



Ivy Wong
Manager, Revenue
(604-276-4046)

IW:gjn

Att. 1: 2013 Tax Rate Comparison

2013 Tax Rate Comparison - Sorted by Class 01 - Residential

Municipalities	Class 01 - Residential	Class 02 - Utilities	Class 04 - Major Industry	Class 05 - Light Industry	Class 06 - Business	Class 08 - Recreation Non-Profit	Class 09 - Farm
Delta	3.3150	39.9922	33.8031	10.6329	10.6329	7.2122	17.5923
Coquitlam	3.0560	40.0000	29.1984	13.5994	13.7554	14.7395	17.2428
Surrey	2.3791	33.0182	11.4101	6.2556	6.9880	2.2950	2.5857
Burnaby	2.2419	34.3515	44.9518	9.4612	9.4612	1.4799	9.4612
Richmond	2.1225	39.9125	14.4282	8.1337	7.6285	1.9637	12.2583
Vancouver	1.8950	36.3614	32.9809	8.2042	8.2042	1.8159	1.8159

2013 Tax Rate Comparison - Sorted by Class 02 - Utilities

Municipalities	Class 01 - Residential	Class 02 - Utilities	Class 04 - Major Industry	Class 05 - Light Industry	Class 06 - Business	Class 08 - Recreation Non-Profit	Class 09 - Farm
Coquitlam	3.0560	40.0000	29.1984	13.5994	13.7554	14.7395	17.2428
Delta	3.3150	39.9922	33.8031	10.6329	10.6329	7.2122	17.5923
Richmond	2.1225	39.9125	14.4282	8.1337	7.6285	1.9637	12.2583
Vancouver	1.8950	36.3614	32.9809	8.2042	8.2042	1.8159	1.8159
Burnaby	2.2419	34.3515	44.9518	9.4612	9.4612	1.4799	9.4612
Surrey	2.3791	33.0182	11.4101	6.2556	6.9880	2.2950	2.5857

2013 Tax Rate Comparison - Sorted by Class 04 - Major Industry

Municipalities	Class 01 - Residential	Class 02 - Utilities	Class 04 - Major Industry	Class 05 - Light Industry	Class 06 - Business	Class 08 - Recreation Non-Profit	Class 09 - Farm
Burnaby	2.2419	34.3515	44.9518	9.4612	9.4612	1.4799	9.4612
Delta	3.3150	39.9922	33.8031	10.6329	10.6329	7.2122	17.5923
Vancouver	1.8950	36.3614	32.9809	8.2042	8.2042	1.8159	1.8159
Coquitlam	3.0560	40.0000	29.1984	13.5994	13.7554	14.7395	17.2428
Richmond	2.1225	39.9125	14.4282	8.1337	7.6285	1.9637	12.2583
Surrey	2.3791	33.0182	11.4101	6.2556	6.9880	2.2950	2.5857

2013 Tax Rate Comparison - Sorted by Class 05 - Light Industry

Municipalities	Class 01 - Residential	Class 02 - Utilities	Class 04 - Major Industry	Class 05 - Light Industry	Class 06 - Business	Class 08 - Recreation Non-Profit	Class 09 - Farm
Coquitlam	3.0560	40.0000	29.1984	13.5994	13.7554	14.7395	17.2428
Delta	3.3150	39.9922	33.8031	10.6329	10.6329	7.2122	17.5923
Burnaby	2.2419	34.3515	44.9518	9.4612	9.4612	1.4799	9.4612
Vancouver	1.8950	36.3614	32.9809	8.2042	8.2042	1.8159	1.8159
Richmond	2.1225	39.9125	14.4282	8.1337	7.6285	1.9637	12.2583
Surrey	2.3791	33.0182	11.4101	6.2556	6.9880	2.2950	2.5857

2013 Tax Rate Comparison - Sorted by Class 06 - Business

Municipalities	Class 01 - Residential	Class 02 - Utilities	Class 04 - Major Industry	Class 05 - Light Industry	Class 06 - Business	Class 08 - Recreation Non-Profit	Class 09 - Farm
Coquitlam	3.0560	40.0000	29.1984	13.5994	13.7554	14.7395	17.2428
Delta	3.3150	39.9922	33.8031	10.6329	10.6329	7.2122	17.5923
Burnaby	2.2419	34.3515	44.9518	9.4612	9.4612	1.4799	9.4612
Vancouver	1.8950	36.3614	32.9809	8.2042	8.2042	1.8159	1.8159
Richmond	2.1225	39.9125	14.4282	8.1337	7.6285	1.9637	12.2583
Surrey	2.3791	33.0182	11.4101	6.2556	6.9880	2.2950	2.5857

2013 Tax Rate Comparison - Sorted by Class 08 - Recreation Non-Profit

Municipalities	Class 01 - Residential	Class 02 - Utilities	Class 04 - Major Industry	Class 05 - Light Industry	Class 06 - Business	Class 08 - Recreation Non-Profit	Class 09 - Farm
Coquitlam	3.0560	40.0000	29.1984	13.5994	13.7554	14.7395	17.2428
Delta	3.3150	39.9922	33.8031	10.6329	10.6329	7.2122	17.5923
Surrey	2.3791	33.0182	11.4101	6.2556	6.9880	2.2950	2.5857
Richmond	2.1225	39.9125	14.4282	8.1337	7.6285	1.9637	12.2583
Vancouver	1.8950	36.3614	32.9809	8.2042	8.2042	1.8159	1.8159
Burnaby	2.2419	34.3515	44.9518	9.4612	9.4612	1.4799	9.4612

2013 Tax Rate Comparison - Sorted by Class 09 - Farm

Municipalities	Class 01 - Residential	Class 02 - Utilities	Class 04 - Major Industry	Class 05 - Light Industry	Class 06 - Business	Class 08 - Recreation Non-Profit	Class 09 - Farm
Delta	3.3150	39.9922	33.8031	10.6329	10.6329	7.2122	17.5923
Coquitlam	3.0560	40.0000	29.1984	13.5994	13.7554	14.7395	17.2428
Richmond	2.1225	39.9125	14.4282	8.1337	7.6285	1.9637	12.2583
Burnaby	2.2419	34.3515	44.9518	9.4612	9.4612	1.4799	9.4612
Surrey	2.3791	33.0182	11.4101	6.2556	6.9880	2.2950	2.5857
Vancouver	1.8950	36.3614	32.9809	8.2042	8.2042	1.8159	1.8159



Annual Property Tax Rates (2014) Bylaw No. 9131

The Council of the City of Richmond enacts as follows:

- (a) Parts 1 through 6 excluding Part 3, pursuant to the *Community Charter*; and
- (b) Part 3 pursuant to section 100 of the *Municipalities Enabling and Validating Act*.

PART ONE: GENERAL MUNICIPAL RATES

1.1 General Purposes

- 1.1.1 The tax rates shown in column A of Schedule A are imposed and levied on the assessed value of all land and improvements taxable for general municipal purposes, to provide the monies required for all general purposes of the **City**, including due provision for uncollectible taxes, and for taxes that it is estimated will not be collected during the year, but not including the monies required under bylaws of the **City** to meet payments of interest and principal of debts incurred by the **City**, or required for payments for which specific provision is otherwise made in the *Community Charter*.

1.2 City Policing, Fire & Rescue and Storm Drainage

- 1.2.1 The tax rates shown in columns B, C & D of Schedule A are imposed and levied on the assessed value of all land and improvements taxable for general municipal purposes, to provide monies required during the current year for the purpose of providing policing services, fire and rescue services and storm drainage respectively in the City, for which other provision has not been made.

2. PART TWO: REGIONAL DISTRICT RATES

- 2.1 The tax rates appearing in Schedule B are imposed and levied on the assessed value of all land and improvements taxable for hospital purposes and for Greater Vancouver Regional District purposes.

PART THREE: TRUNK SEWERAGE RATES

3.1 The tax rates shown in Schedule C are imposed and levied on the assessed values of all land only of all real property, which is taxable for general municipal purposes, within the following benefitting areas, as defined by the Greater Vancouver Sewerage & Drainage District:

- (a) Area A, being that area encompassing those portions of sewerage sub-areas and local pump areas contained in the Lulu Island West Sewerage Area of the Greater Vancouver Sewerage and Drainage District as shown on the current plan of the Lulu Island West Sewerage Area; and
- (b) Area B, being that area encompassing Sea, Mitchell, Twigg and Eburne Islands, which is that part of the **City** contained in the Vancouver Sewerage Area of the Greater Vancouver Sewerage and Drainage District as shown on the current plan of the Vancouver Sewerage Area; and
- (c) Area C, being that part of the **City** contained in the Fraser Sewerage Area of the Greater Vancouver Sewerage and Drainage District as shown on the current plan of the Fraser Sewerage Area,

and the total amount raised annually is to be used to retire the debt (including principal and interest) incurred for a sewage trunk system, which includes the collection, conveyance and disposal of sewage, including, without limiting the generality of the foregoing, forcemain sewers and their pumphouses and such ancillary drainage works for the impounding, conveying and discharging the surface and other waters, as are necessary for the proper laying out and construction of the said system of sewerage works, provided however that land classified as "Agriculture Zone" in Section 14.1 of the **Zoning Bylaw**, is exempt from any tax rate imposed or levied pursuant to this Part.

PART FOUR: GENERAL PROVISIONS

4.1 Imposition of Penalty Dates

4.1.1 All taxes payable under this bylaw must be paid on or before July 2, 2014.

4.2 Designation of Bylaw Schedules

4.2.1 Schedules A, B and C are attached and designated a part of this bylaw.

PART FIVE: INTERPRETATION

5.1 In this bylaw, unless the context otherwise requires:

CITY	means the City of Richmond.
ZONING BYLAW	means the Richmond Zoning Bylaw 8500, as amended from time to time.

PART SIX: PREVIOUS BYLAW REPEAL

6.1 Annual Property Tax Rates Bylaw No. 9007 is repealed.

PART SEVEN: BYLAW CITATION

7.1 This Bylaw is cited as “**Annual Property Tax Rates (2014) Bylaw No. 9131**”.

FIRST READING

SECOND READING

THIRD READING

ADOPTED

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

MAYOR

CORPORATE OFFICER

SCHEDULE A to BYLAW NO. 9131

PROPERTY CLASS	COLUMN A GENERAL PURPOSES	COLUMN B POLICING SERVICES	COLUMN C FIRE & RESCUE	COLUMN D STORM DRAINAGE	TOTAL
1. Residential	1.33947	0.48760	0.37252	0.04997	2.24956
2. Utilities	23.76537	8.65117	6.60935	0.88656	39.91245
4. Major Industry	8.16659	2.97283	2.27120	0.30465	13.71527
5. Light Industry	4.33885	1.57944	1.20667	0.16186	7.28682
6. Business / other	4.33885	1.57944	1.20667	0.16186	7.28682
8. Recreation / non profit	1.28656	0.46834	0.35780	0.04799	2.16069
9. Farm	7.50402	2.73164	2.08693	0.27994	12.60253

SCHEDULE B to BYLAW NO. 9131

PROPERTY CLASS	REGIONAL DISTRICT
1. Residential	0.05701
2. Utilities	0.19953
4. Major Industry	0.19383
5. Light Industry	0.19383
6. Business/other	0.13967
8. Rec/non profit	0.05701
9. Farm	0.05701

SCHEDULE C to BYLAW NO. 9131

AREA	RATES
A, B, & C	Sewer Debt Levy (land only) 0.00231



City of Richmond

Report to Committee

To: General Purposes Committee

Date: March 3, 2014

From: David Weber
Director, City Clerk's Office

File: 12-8125-70-01/Vol 01




Re: Options for the 2014 General Local Election

Staff Recommendation

That:

- (1) based on the option selected, staff be authorized to take all necessary steps to conduct and make arrangements for the 2014 General Local Election;*
- (2) staff bring forward any appropriate bylaw amendments, as required, pertaining to the 2014 General Local Election; and*
- (3) one-time additional funding be approved from the General Contingency Account, in the amount corresponding to the option selected.*

David Weber
Director, City Clerk's Office
(604-276-4098)

REPORT CONCURRENCE	
CONCURRENCE OF GENERAL MANAGER 	
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS: 
APPROVED BY CAO 	

Staff Report

Origin

For the 2011 General Local Election, a number of new initiatives were introduced which were aimed at providing improved information to the voting public and removing barriers to voting. These new initiatives were funded on a one-time additional level basis and were not necessarily intended to become a permanent part of the election program, but were meant to be implemented on a trial basis (a general description and overview of the Richmond Election Program is included as Attachment 1). One of the main initiatives was the “vote anywhere” initiative, which introduced an at-large approach to voting – a departure from the previous divisional voting model.

On November 4, 2013, the General Purposes Committee considered a report on the election program and adopted the following referral motion:

That the staff report titled “2014 General Local and School Election Program and Budget” be referred back to staff for further analysis on:

- (1) The Vote Anywhere approach regarding the Surrey experience and others that should be considered;***
- (2) Mall voting;***
- (3) Restructuring the polls with more voting places; and***
- (4) Strategies for the use of social media.***

Information in response to this referral, which provides background information for this report, is detailed in Attachment 2.

The purpose of this report is to present options for the overall format for the 2014 civic election. Divisional voting and at-large voting options are presented for consideration representing different election formats and different levels of service. A proposed budget is included for each of the following options:

Options		Budget
1	Divisional Voting Model – Basic (Same approach as 2008)	\$ 463,500
2	Voting At-Large Model – “Vote Anywhere” but using the established Voting Places	\$ 516,000
3	Voting At-Large Model – 2011 “Vote Anywhere” approach	\$ 557,000
	Additional Program Components (Extra program features which can be added to any of the 3 options)	+ \$ 66,000 (in addition to the base budget for chosen option)

Analysis

Option 1: Divisional Voting Model – Basic (Same approach as 2008)

This option reflects a “back to basics” approach to the election, using the model used for many years prior to 2011. With this model, Richmond is divided into 34 voting divisions with one designated voting place per division. With very few exceptions, the same divisional boundaries and voting places were used for every election from the time that the automated vote counting machines were first implemented in 1993. Maps of the established voting divisions are shown in Attachment 3.

Divisional voting must be established by bylaw and under this model, electors may only vote on General Voting Day at their designated voting place, which is based on the location of their residence. Under the divisional voting model, there are no legal exceptions that would allow voters to vote outside of their designated voting places. Electors who arrive at the wrong voting place on General Voting Day must be directed to their correct designated voting place in order to vote.

Pros / advantages:

- Straight-forward and well-understood by the public
- A proven, stable model with a long history in Richmond
- Less costly to implement than voting at-large
- Simpler to administer and organize as distribution of electors per voting places is more predictable

Cons / disadvantages:

- The established divisions may not reflect changes in population distribution
- Does not provide electors with the choice to vote outside of their immediate neighbourhood; voters are restricted to a single voting place

Option 2: Voting At-Large Model – “Vote Anywhere” but using the Established Voting Places

This option is similar to the approach used in 2011, in that voters would be legally permitted to vote at any of the voting places on General Voting Day, except that under this proposed option, only the established voting places would be utilized (see Attachment 4 for a list of established voting places). Locations such as malls, community centres, colleges, and sport facilities would not be used for voting places. Voters could choose to vote at their usual neighbourhood voting place or they could choose to vote at any of the other established neighbourhood voting places.

Pros / advantages:

- Provides familiarity in terms of voting place locations
- Provides greater choice and convenience to the voting public

Cons / disadvantages:

- Less predictable in terms of staffing and supplying the voting places

- Less predictable in terms of voter turnout at any particular voting place
- More costly than the divisional voting model in terms of technology, staffing and training
- Impact on voter turnout is mixed. While this approach may provide a more convenient voting opportunity for some voters, the benefit of this approach is mainly the increased convenience for those who already intend to vote, with perhaps only a slight impact on voter turnout.

Option 3: Voting At-Large Model – the 2011 “Vote Anywhere” approach

In 2011, the election was conducted using an at-large voting model, which was also referred to as the “vote anywhere” approach. Under this model, electors did not have designated voting places and were permitted to vote at any voting place either close to home in their neighborhoods or when they were in the general community. By removing designated voting divisions, voting places could be located in a mix of conventional locations and non-conventional / higher-traffic locations such as community centres and shopping malls. An average of 41% of voters who voted in 2011 chose to vote at a voting place other than the one that would have been their designated neighbourhood voting place under a divisional voting model. A very modest increase in voter turnout was observed in 2011 (23.74%) in comparison to the previous election (22.1%).

In 2011, Surrey, Coquitlam and Richmond used the voting at-large model. Burnaby and Vancouver ran pilot projects to test the process and the technology in 2011 and plan to fully implement the at-large voting approach for this coming election. Surrey and Coquitlam are planning to continue with the at-large voting model in 2014.

Pros / advantages:

- Provides greater choice and convenience to the voting public in terms of voting locations

Cons / disadvantages:

- Less predictable in terms of staffing and supplying the voting places
- Somewhat less predictable in terms of voter turnout at any particular voting place
- Most costly of the 3 options presented in terms of technology, staffing and training
- Can present challenges in terms of locating voting places in non-conventional locations such as malls. Increased costs result due to administrative complexity and increased coordination requirements for non-conventional locations
- Impact on voter turnout is mixed. While this approach may provide a more convenient voting opportunity for voters, the benefit of this approach is mainly the increased convenience, with perhaps only a slight impact on voter turnout

Additional Program Components (The following extra program features can be added to any of the 3 Options)

Most of the additional election program features listed below were first implemented in 2011 on a one-time additional funding basis.

(1) The publication of candidate profiles (\$16,000)

For many election cycles, the City Election Office has mailed a *Voters Guide* to every household in Richmond outlining basic information for voters (for example, a map showing the location of voting places, basic eligibility and identification requirements, hours of voting, etc.).

For the 2011 election, the *Voters Guide* included, for the first time, brief candidate profiles in addition to the regular election information. The profile statements and photographs were submitted by the candidates as part of the nomination process. To ensure consistency and fairness, candidates were required to follow strict submission guidelines.

In 2011, one-time funding in the amount of \$16,000 was approved to cover incremental costs for the printing and additional postage required for the expanded 2011 *Voters Guide*. To continue to provide this in 2014 would require additional one-time funding in the amount of \$16,000.

(2) Additional Advance Voting Opportunities (\$20,000)

Advance voting is becoming more and more popular with each election. A total of 4,448 or 14.3% of all ballots cast in 2011 were cast at advance voting opportunities. In comparison, in 2008, 2,942 ballots were cast in advance or 10.6% of all ballots cast.

In 2011, the City offered 9 advance voting opportunities on 5 separate days, which included 3 advance voting opportunities at City Hall and 6 advance voting opportunities at locations out in different areas of the community. This was the first time that advance voting was offered outside of City Hall. Advance voting was offered in Steveston (McMath School), East Richmond (Cambie Community Centre), City Centre (the Library/Cultural Centre, the Richmond Olympic Oval and Kwantlen College) and the South Arm area (McRoberts School).

Prior to the last election, the City typically only offered up to 5 advance voting opportunities. In order to continue to offer an increased number of advance voting opportunities as was done in 2011, including opportunities out in the community, an additional one-time funding amount of \$5,000 per additional voting opportunity beyond 5 would be appropriate. Additional one-time funding in the amount of \$20,000 would cover costs for up to 9 advance voting opportunities.

(3) Social Media & Election “App” (\$18,000)

During the last election, the Election Office established a Facebook page in addition to the information and look-up tools available on the City website. For 2014, staff are also exploring the possibility of a downloadable “app” for mobile devices which would provide basic election information on voting opportunities, locations, hours and candidate profiles.

(4) Discretionary / additional advertising (\$12,000)

Discretionary advertising would include any advertising that is beyond what is required as a minimum by statute. During the 2011 election period, additional advertising such as newspaper wraps, informal election ads and bus shelter posters were used to reach out to the general public in addition to the minimum required statutory advertisements.

All together, the additional election program components outlined above total \$66,000 in additional one-time costs that do not currently exist in the base election budget.

In terms of the commonalities and difference between the proposed budgets outlined below, certain base election costs are relatively consistent across the board, regardless of the election model that is chosen (for example, statutory advertising, ballot printing, signage printing, supplies, vote counting machine maintenance and programming, voters list management, voter cards and postage, moving and deliveries, and the Voters Guide would all cost the same irrespective of whether the election followed a divisional voting model or an at-large voting model).

Where the main cost variations would be seen, between the different options, is primarily in the staffing levels, training and technology costs. Under the at-large voting approach, as the number of potential voters attending each voting place is much less predictable than under the divisional voting model, it is important to increase staffing levels in order to adequately respond to unexpected crowds. In addition, as there are many more logistical and technology planning activities under the at-large model, election office staffing levels must also be higher.

Where non-conventional voting place locations are used, an even greater level of logistical and administrative coordination is required, increasing those costs even further. Also, under the at-large model, there is an increase to technology requirements at the voting places, which leads to greater computer equipment costs, data/internet connectivity costs, and IT support costs. Finally, because of the greater use of technology under the at-large voting approach, more election day staff must be trained in the proper use of that technology to ensure smooth election day operations.

Other differences in the proposed budgets are due to the inclusion of the additional program components as a potential additional cost on top of each option, namely, the inclusion of the candidate profiles in the Voter's Guide (\$16,000), the continuation of the additional advance voting opportunities (\$20,000), the creation of an election "app" for mobile devices and other social media efforts (\$18,000), and the continuation of an expanded discretionary advertising campaign (\$12,000). The total projected cost of the additional program components would be \$66,000.

Financial Impact

Election Program Costs	Option 1	Option 2	Option 3
	Divisional Voting	Voting At-Large	Voting At-Large
	SAME AS 2008 BASIC	“ESTABLISHED” VOTING PLACES	SAME AS 2011 (With Non- Conventional Voting Places)
Base Election Costs			
• Statutory Ads	18,000	18,000	18,000
• Ballot Printing	24,000	24,000	24,000
• Printing and supplies	20,000	20,000	20,000
• Vote counting machines (maintenance and programming services)	32,000	32,000	32,000
• Voters List system, Voter cards, Postage	105,000	105,000	105,000
• Moving, deliveries, general	12,000	12,000	12,000
• Voter's Guide (Basic guide without candidate profiles)	15,000	15,000	15,000
• Voting Day staff	93,500	105,000	126,000
• Training	12,000	25,000	25,000
• Election Office staff (includes staffing contingency)	120,000	130,000	150,000
• Computer equipment/technology	12,000	30,000	30,000
TOTAL	\$ 463,500	\$ 516,000	\$ 557,000
Additional Program Components	Option 1 Plus Additional Components	Option 2 Plus Additional Components	Option 3 Plus Additional Components
• Base Option Cost	463,500	516,000	557,000
• Candidate Profiles in Voter's Guide	16,000	16,000	16,000
• Additional Advance Voting (4)	20,000	20,000	20,000
• Social Media / Election App.	18,000	18,000	18,000
• Discretionary/additional ads	12,000	12,000	12,000
TOTAL with Additional Program Components	\$ 529,500	\$ 582,000	\$ 623,000

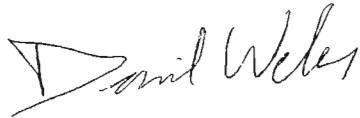
The amount currently available in the base election budget is \$347,000. The amount of additional funding required for each proposed option is detailed in the table below. The source of additional one-time funding may come from the General Contingency Account.

Options		Proposed Budget	Available Budget	One-Time Funding Required (= Proposed minus available budget)
Option 1	Divisional Voting – Basic (2008 approach)	\$ 463,500	\$ 347,000	\$ 116,500
Option 1 Plus	Divisional Voting – Basic Plus	\$ 529,500	\$ 347,000	\$ 182,500
Option 2	Voting At-Large – At Established Places	\$ 516,000	\$ 347,000	\$ 169,000
Option 2 Plus	Voting At-Large – Established Places Plus	\$ 582,000	\$ 347,000	\$ 235,000
Option 3	Voting At-Large – 2011 approach	\$ 557,000	\$ 347,000	\$ 210,000
Option 3 Plus	Voting At-Large – 2011 approach Plus	\$ 623,000	\$ 347,000	\$ 276,000

Conclusion

Local government elections can be structured in different ways, and varying levels of service can be offered from community to community. One of the most basic differences in approach is divisional voting versus at-large voting. Both approaches have been used in Richmond, with the at-large voting model used in 2011 and the divisional voting model used in 2008 as well as in many years prior. Each approach has advantages and disadvantages as outlined.

For consideration for the 2014 election, options have been presented for both divisional and at-large voting, with and without additional program components. Depending on the fundamental model desired, additional one-time funding will be required with the amount depending on the corresponding level of service. Appropriate bylaw amendments will be brought forward in due course, as required, to implement the option chosen.



David Weber
Director, City Clerk's Office
(604-276-4098)

- Attachment 1 – The City of Richmond Election Program
- Attachment 2 – Response to GP Referral of November 4, 2013
- Attachment 3 – Map of Established Voting Divisions
- Attachment 4 – Voting Places for General Local Election (Used for 2008 Election)

The City of Richmond Election Program

Governing Legislation and Mandate

Under the City of Richmond election program, the Director, City Clerk's Office (Corporate Officer) is also designated by bylaw as the City's Chief Election Officer and is therefore responsible for the administration of elections and by-elections for the City of Richmond. Under current legislation, a General Local and School Election must be held on the third Saturday in November every three years for the Offices of Mayor, Councillor, and School Trustee. The next election will be held on November 15, 2014.

In February 2014, the Provincial Government introduced legislation that, once enacted, would extend the term of office to 4 years and change the date of the civic election to the third Saturday in October. If this amendment becomes law as anticipated, then the next general civic election after 2014 would take place in October 2018 and candidates that are elected in 2014 would serve in office for 3 years and 11 months.

The Richmond General Local and School Election is administered in accordance with the provisions of:

- The Local Government Act (Part 3 and 4),
- The Community Charter (Part 4),
- The School Act (Part 4),
- The Civic Election Administration and Procedure Bylaw No.7244, and
- The Election and Political Signs Bylaw No.8713.

For the 2014 election, the BC Provincial Government has proposed and introduced additional new legislation relating to campaign financing.

Electors

For the last local election in 2011, Richmond had 131,082 registered electors. The City, by bylaw, adopts the Provincial Voters List (the Richmond portion) as the Richmond List of Electors, which is the common practice for municipalities across BC. The Provincial Voters List is maintained by Elections BC and draws from numerous federal and provincial government sources to ensure accuracy as much as possible. The City supplements the list by taking advance voter registrations in the period leading up to local elections as well as by providing elector registration opportunities at the time of voting (as required by the Local Government Act).

Voting Opportunities

In 2011, Richmond had 32 voting places open on General Voting Day (from 8:00 am to 8:00 pm), provided 9 advance voting opportunities, 8 "mobile polls" at local care facilities as well as opportunities for mail-in ballots for travellers and people with limited mobility. In total, 31,126 ballots were cast at all voting opportunities combined and the results were counted and tabulated using automated vote counting machines. The automated vote counting technology has been in use in Richmond for 20 years and is a well accepted and efficient technology. Final election

results were broadcast live to the City website following the close of the polls at 8:00 pm, with all results available on-line by 8:45 pm.

Election Staffing and Training

In order to staff the various voting places, advance voting opportunities and mobile polls, the City Clerk's Office hires and trains approximately 250-275 temporary front-line election staff every election cycle (to fill approximately 350 positions). Many of the most senior temporary election staff (those in charge of the voting places) have extensive experience working elections in Richmond. A rigorous mandatory training program is provided to temporary election staff which includes:

- Elector registration training sessions,
- Vote-counting machine orientations (hands-on training),
- Computer training as appropriate, and
- A "mock election" night used to demonstrate and review election procedures.

In addition to the in-person training sessions, all election staff are provided with detailed election training manuals and are provided access to customized on-line training videos which cover a range of election procedures and processes.

In addition to the approximately 350 front-line election positions, the City Clerk's Office hires several temporary full-time election staff during the election year and opens a public Election Office within City Hall. In addition to the dedicated Election Office staff, a considerable amount of election-related work is undertaken by other staff in the City Clerk's Office with technical support for the election being provided by the IT Division.

Public Awareness / Advertising / Public Access Tools

Numerous statutorily-required advertisements must be placed in local newspapers at specific points in time leading up to the election in order to notify and inform the public about advance voter registration, the opening of nominations, voting opportunities, and other basic election information. In addition to the statutory advertising, the City Election Office usually places additional advertising and key messaging in local papers, in the form of "newspaper wraps" and other less formal and more visually accessible ads, such as bus stop shelter posters.

In addition to print media, the City Election Office prepares and mails to every Richmond household a *Voters Guide* which includes all the pertinent information needed by voters to find the voting places, to understand the eligibility and identification requirements, how to obtain assistance in advance or at the time of voting, and to find out who is running in the election. For the first time in 2011, the *Voters Guide* also included candidate profiles and candidate photographs, which were submitted by candidates along with their nomination papers. The *Voters Guide* is also available on-line in English, French, Chinese and Punjabi.

All manner of election-related information is also available on the City Website election pages and for the first time in 2011 on the City Election Office Facebook Page. The City website included several electronic database tools to assist voters to find voting places and to check

whether they were registered on the voters list. On General Voting Day, the public could view live election results on the City website as the results are reported from the various voting places. In total in 2011, the election pages on the City website had **67,365** public page views with **16,744** of those page views occurring on General Voting Day.

Election Day Operations

On General Voting Day and during advance voting opportunities, voters are able to register to vote if necessary immediately before casting a ballot. Voting place election staff, who have received training in election day procedures arrive early at each voting place to set-up equipment and materials and to prepare to receive electors. Each voting place team is supported by City staff stationed at an election call centre at City Hall. The call centre is available for general inquiries by election staff and the public.

If technical problems present themselves at the voting places during voting hours, technical support staff are available and can be dispatched to any voting location to provide assistance. Additional ballots, supplies and other equipment are also available and ready for distribution to the voting places as required. At the end of the evening, when the polls close, memory cards from the automated vote counting machines are transported to election headquarters where the results are downloaded, compiled and published live to the City website.

Reponse to GP Referral of November 4, 2013

On November 4, 2013, General Purposes Committee considered a report on the election program and adopted the following referral motion:

That the staff report titled “2014 General Local and School Election Program and Budget” be referred back to staff for further analysis on:

- (1) The Vote Anywhere approach regarding the Surrey experience and others that should be considered;*
- (2) Mall voting;*
- (3) Restructuring the polls with more voting places; and*
- (4) Strategies for the use of social media.*

The following information is offered in response to the referral.

(1) The Vote Anywhere approach regarding the Surrey experience and others that should be considered

In 2011, Surrey, Coquitlam and Richmond implemented an at-large voting model while Burnaby and Vancouver ran pilot projects to test the process and the technology. For 2014, Surrey and Coquitlam plan to continue with the at-large voting model and Burnaby and Vancouver are planning to fully implement at-large voting for the first time.

Surrey took a somewhat different approach to the implementation of the “vote anywhere” model in 2011 in that they reduced the number of voting places in Surrey from 74 to 52 voting places. In making that reduction, Surrey staff report that they did not receive a significant number of public complaints. They report that the efficiency and accessibility of the at-large model was generally well received by the public. While they are looking to make some small adjustments to the voting place locations based on what they learned in 2011, they are not planning to increase the overall number of voting places above the number used in 2011.

(2) Mall voting

In Richmond in 2011, 2 voting places were located in malls (Lansdowne Centre and Aberdeen Centre). Lansdowne mall was the busiest voting place with 1,772 ballots cast (5.7% of total ballots cast) and Aberdeen Centre was the 8th busiest voting place with 1,115 ballots cast (3.6% of total ballots cast).

Given the unique location of these voting places, there were many special and challenging logistical arrangements that had to be made, in particular with regard to:

- Hours of operation – The shopping mall hours were not the same as the hours of voting, therefore, special arrangements had to be made for the mall buildings to open early and remain open late with special access and way-finding provided to guide people to the voting areas within the mall;

- Parking – Special reserved parking arrangements had to be made so that election staff who were delivering supplies and ballots during the day would have ready access to the voting place, especially at Aberdeen Centre where finding nearby parking can be very challenging.
- Security – Because the voting places in the malls were anticipated to be very busy and were located in very high traffic areas, additional voting place security personnel (Commissionaires) were hired at additional cost to provide assistance and general security at the shopping mall voting places.
- Way-finding signage – The malls have strict policies on the use of signage at the mall entrances and within the mall, which limited the type of way-finding signage that would normally be utilized by the Election Office to direct voters to the voting place.
- Political signage – There were some challenges with regard to political signage at malls in that mall management was concerned that they had to attend to improperly placed political signage on mall property during the election campaign. In addition, the size and high traffic activity at the malls made it challenging to monitor and enforce the statutory prohibition on political signage and political materials located within 100 metres of the voting place at the time of voting.
- Available space – Not all shopping malls have vacant spaces large enough to house a voting place, so it can be challenging or impossible to secure an appropriately-sized space within a shopping mall that would guarantee an adequate voting environment

(3) Restructuring the polls with more voting places

When vote counting machines were first used in 1993, the largest voting division had just over 2,600 registered electors whereas the smallest divisions had just over 1,100 registered electors. By 2008, the number of registered electors in the largest voting division had grown to over 8,600 while the smaller divisions still only ranged from a maximum of 1,700 to 2,100 registered electors. In other words, the number of registered electors in some voting divisions had increased at a much greater rate than others, to the point where the difference between the smallest to the largest divisions had grown by over 4.5 times.

This in itself does not necessarily warrant the creation of new voting divisions. Most of the time, increases in the number of registered electors served with a voting division can be handled by increasing the staff complement at the voting place. However, if the number of ballots cast in a day is beyond what can comfortably be handled by one election team, even one that has additional staff, then it may be worth examining divisional boundaries to create additional divisions and voting places.

Experience has shown that once the number of ballots cast at a given voting place starts to tip over the 1,000 mark, we begin to experience a significant amount of activity at the voting place, especially where there are many new registrants to process or where voters require assistance with translation. Based on 2008 figures, the following 4 Voting Places are beginning to consistently exceed the upper limit in terms of comfortable numbers of voters in a given day:

- RC01 Thompson Elementary – 178% increase in the number of registered electors between 1993 and 2008 (from 1,918 to 5,335) with 1,093 ballots cast in 2008;

- RS05 Homma Elementary – 140% increase in the number of registered electors between 1993 and 2008 (from 2,397 to 5,750) with 1,382 ballots cast in 2008;
- RE06 Kate McNeely School – 245% increase in the number of registered electors between 1993 and 2008 (from 2,137 to 7,368) with 1,052 ballots cast in 2008; and
- RE01 General Currie School – 276% increase in the number of registered electors between 1993 and 2008 (from 2,297 to 8,628) with 1,248 ballots cast in 2008.

If Council is inclined to stay with the same voting divisions and voting places under the divisional model as was discussed at the November 4, 2013 GP meeting, then it is quite possible to manage these larger voting places by increasing the staffing levels and by turning those voting places into “super-poll” sized voting places. However, if there is some appetite for change, these voting divisions could be re-examined when the new 2014 voters list data becomes available to see whether there is an advantage to re-defining divisional boundaries in these neighbourhoods.

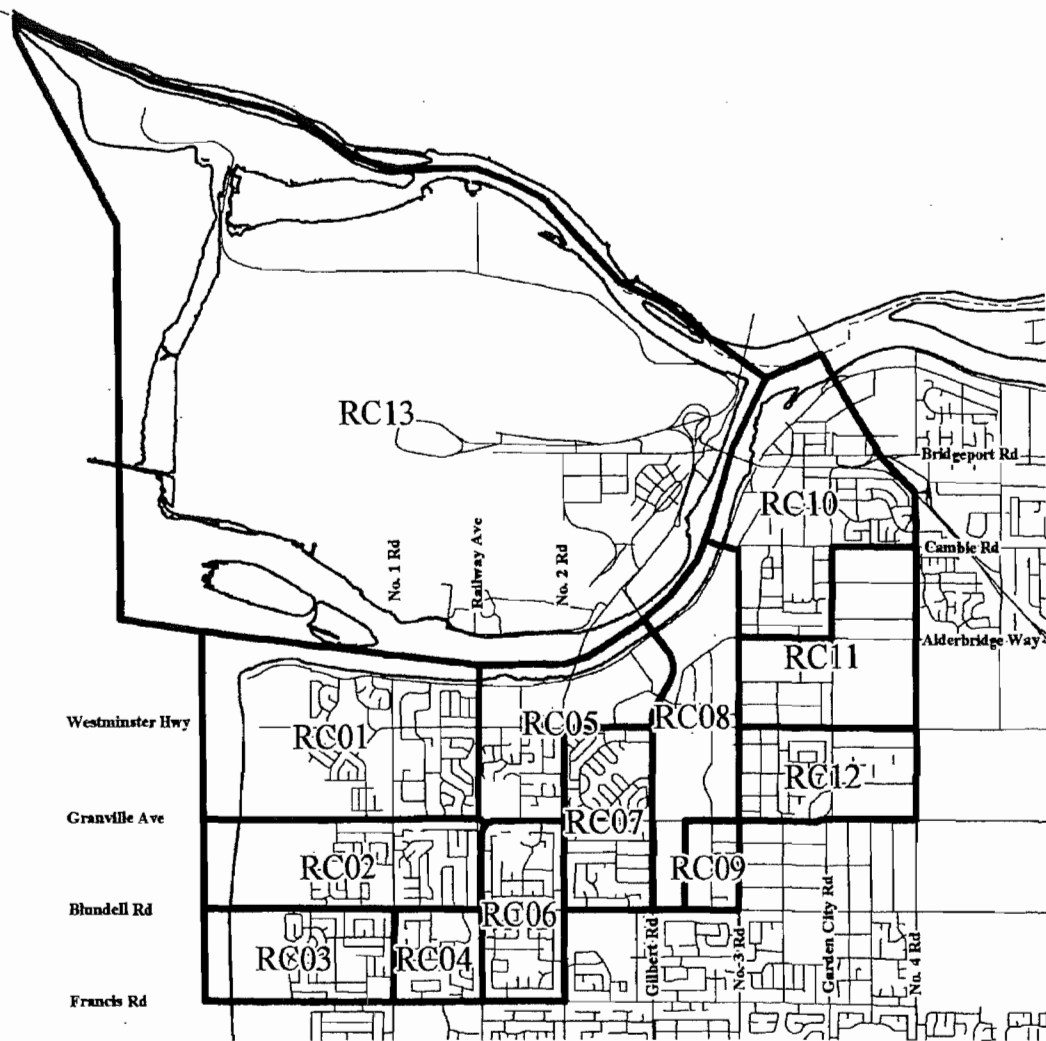
(4) Strategies for the use of social media

In 2011, a Facebook page was created for the election which was used to distribute key messages and to advertise specific key milestones and events.

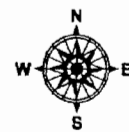
For 2014, staff are exploring the possibility of creating a downloadable “app” which would provide general election event information, voting place location look-up tools, and candidate profile information on smartphones and mobile devices.

The Election Office will work closely with Communications staff to capitalize on any appropriate opportunities to promote the election through social media and traditional media.

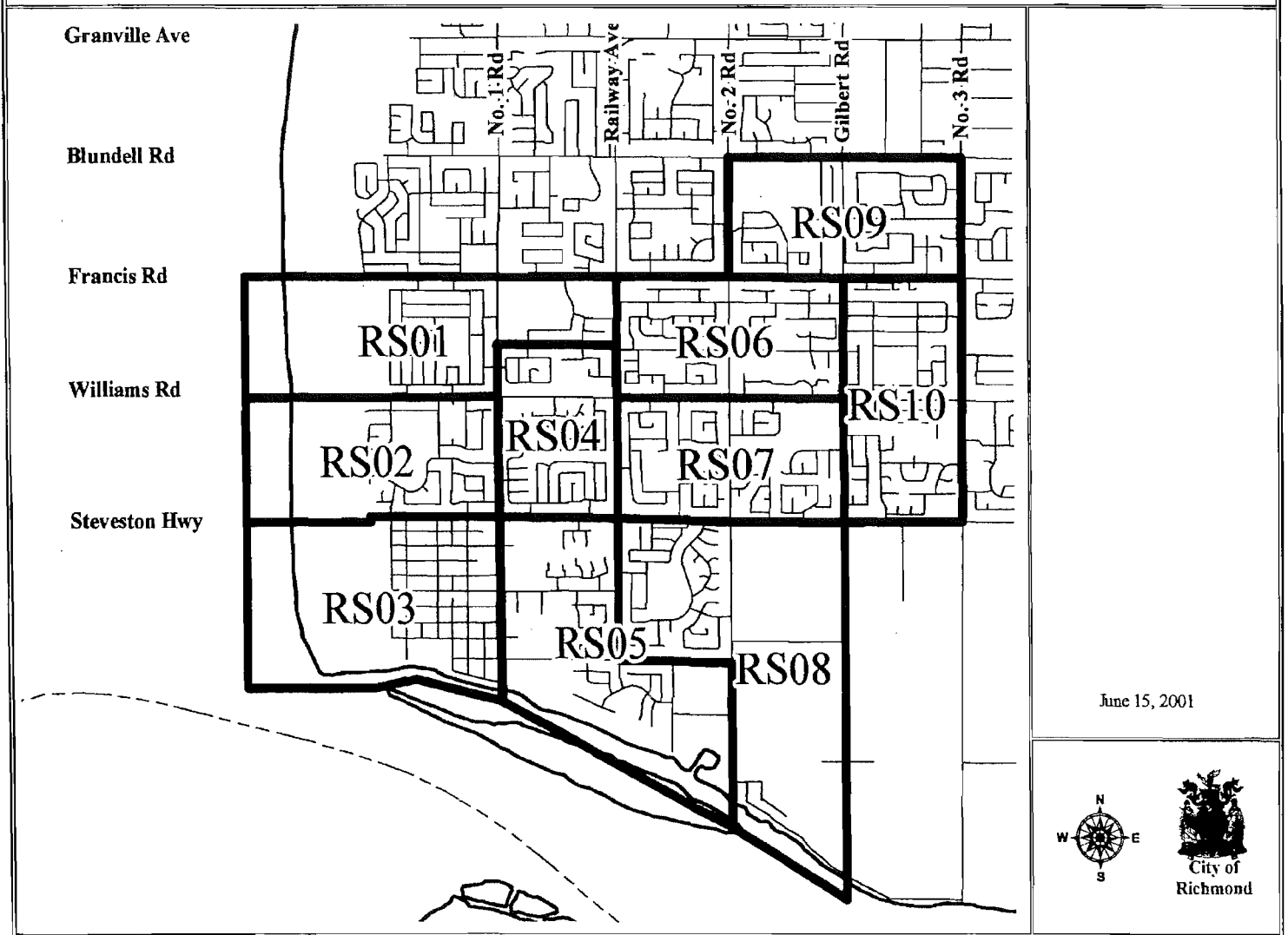
Civic Voting Divisions - Richmond Centre



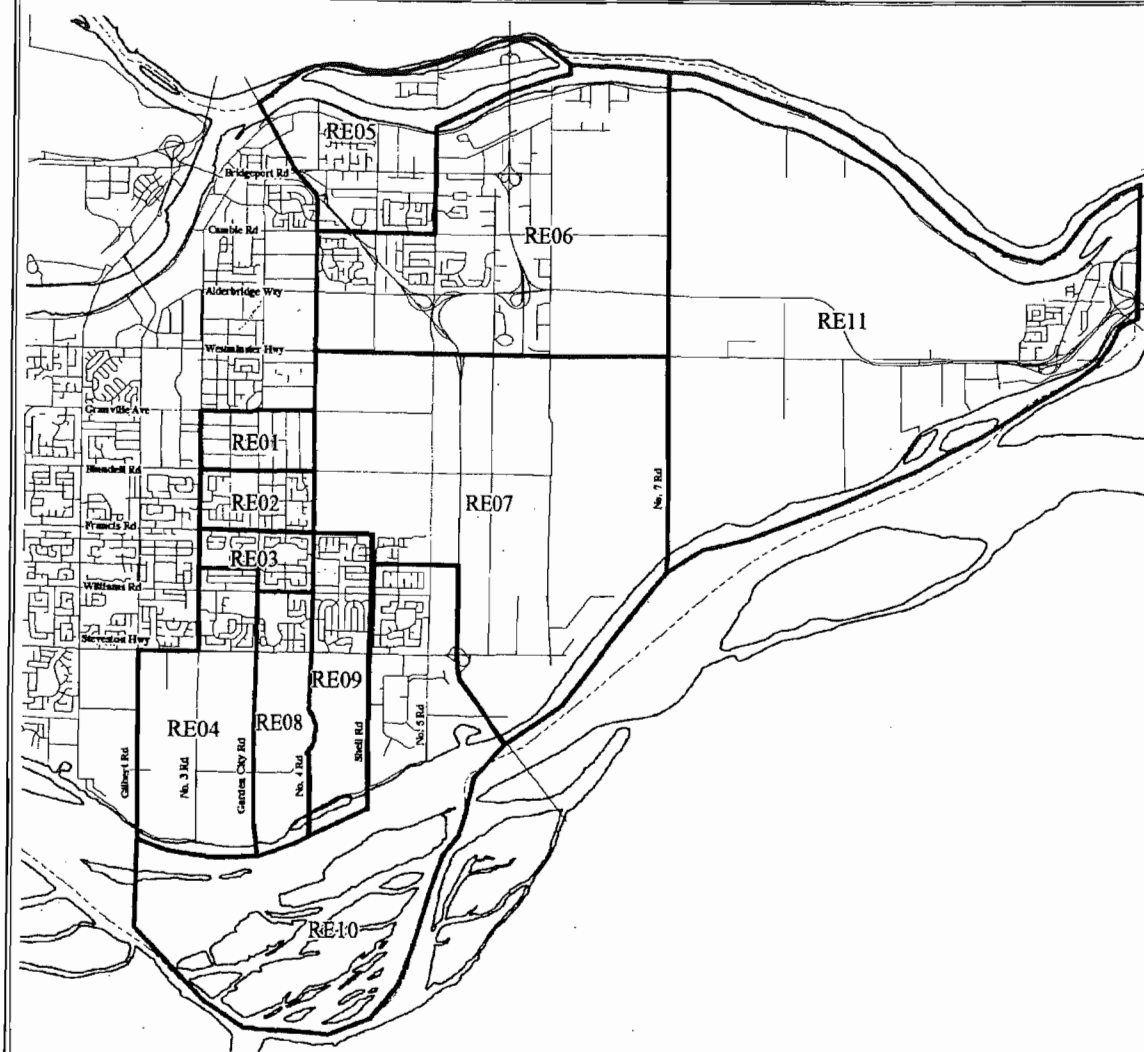
June 15, 2001



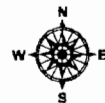
Civic Voting Divisions - Richmond Steveston



Civic Voting Divisions - Richmond East



June 15, 2001



Voting Places for General Local and School Election

(Used for 2008 Election)

RICHMOND - CENTRE (RC)

RC01	Thompson Elementary School	6211 Forsyth Crescent
RC02	Quilchena Elementary School	3760 Moresby Drive
RC03	Gilmore Elementary School	8380 Elsmore Road
RC04	Grauer Elementary School	4440 Blundell Road
RC05	Blair Elementary School	6551 Lynas Lane
RC06	McKay Elementary School	7360 Lombard Road
RC07	Brighthouse Elementary School	6800 Azure Road
RC08	Minoru Place Seniors Centre	7660 Minoru Gate
RC09	Richmond Secondary School	7171 Minoru Boulevard
RC10	Talmey Elementary School	9500 Kilby Drive
RC11	Tomsett Elementary School	9671 Odlin Road
RC12	Cook Elementary School	8600 Cook Road
RC13	Sea Island Elementary School	1891 Wellington Crescent

RICHMOND - EAST (RE)

RE01	General Currie Elementary School	8220 General Currie Road
RE02	Palmer Secondary School	8160 St. Albans Road
RE03	Walter Lee Elementary School	9491 Ash Street
RE04	Bridge Elementary School	10400 Leonard Road
RE05	Tait Elementary School	10071 Finlayson Drive
RE06	Kate McNeely Elementary School	12440 Woodhead Road
RE07	Kingswood Elementary School	11511 King Road
RE08	Whiteside Elementary School	9282 Williams Road
RE09	McNair Secondary School	9500 No. 4 Road
RE10	Woodward Elementary School	10300 Seacote Road
RE11	Hamilton Elementary School	5180 Smith Drive

RICHMOND - STEVESTON (RS)

RS01	Dixon Elementary School	9331 Diamond Road
RS02	Manoah Steves Elementary School	10111 Fourth Avenue
RS03	Lord Byng Elementary School	3711 Georgia Street
RS04	Diefenbaker Elementary School	4511 Hermitage Drive
RS05	T.K. Homma Elementary School	5100 Brunswick Drive
RS06	Wowk Elementary School	5380 Woodward Road
RS07	Steveston-London Secondary School	6600 Williams Road
RS08	Westwind Elementary School	11371 Kingfisher Drive
RS09	Blundell Elementary School	6480 Blundell Road
RS10	Maple Lane Elementary School	7671 Alouette Drive



City of Richmond

Report to Committee

To: General Purposes Committee

Date: April 17, 2014

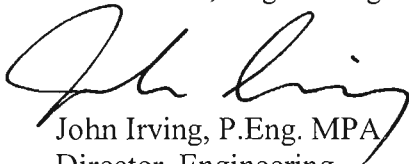
From: John Irving, P.Eng. MPA
Director, Engineering

File: 10-6600-10-03/2014-
Vol 01

Re: River Green District Energy Utility Service Area Bylaw No. 9134

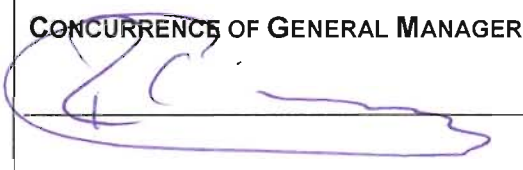


Staff Recommendation

The River Green District Energy Utility Service Area Bylaw No. 9134, presented in the "River Green District Energy Utility Service Area Bylaw No. 9134" report dated, April 17, 2014, from the Director, Engineering be introduced and given first, second and third reading.



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

Att. 1

REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Finance Division	<input checked="" type="checkbox"/>	
Law	<input checked="" type="checkbox"/>	
Development Applications	<input checked="" type="checkbox"/>	
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS: 	APPROVED BY CAO 

Staff Report

Origin

As directed by Council in 2011, the City and Corix Utilities Inc. entered into a Memorandum of Understanding (MOU) to develop a district energy utility business and infrastructure plan to service the River Green development and the Richmond Olympic Oval area. For discussion purposes this has been referred to as the River Green District Energy Utility (RGDEU).

Based on the successful completion of Phase I (Due Diligence Phase) of the MOU, Council endorsed the following staff recommendations on July 22, 2013 to proceed to the Business & Infrastructure Agreement phase of the MOU:

“That

- 1. Staff be authorized to negotiate the business and infrastructure agreements with Corix Utilities Inc. for the River Green District Energy Utility under terms outlined in the memorandum of understanding between the City and Corix Utilities Inc, dated February 17, 2011;*
- 2. Staff be authorized to proceed with the preparation of the River Green District Energy Utility Phase 1 Service Area Bylaw based on the conceptual service area detailed in Attachment 4 to the staff report titled “River Green District Energy Utility”, dated June 27, 2013;*
- 3. Temporary and permanent energy centre site locations detailed in Attachment 4 to the staff report titled “River Green District Energy Utility”, dated June 27, 2013 be endorsed for the purposes of developing the Agreement and Bylaw under recommendations 1 and 2; and*
- 4. Staff be authorized to prepare a strategy to provide interim district energy services within City Centre Area but outside of the Phase 1 service area.”*

This report pertains to items #2 and #4 above. This opportunity directly aligns with Council’s Term Goals:

- 8.1. Continued implementation and significant progress towards achieving the City’s Sustainability Framework, and associated targets.
- 8.4. Review opportunities for increasing sustainable development requirements for all new developments, including consideration of increasing requirements for sustainable roof treatments (e.g. rooftop gardens, sola panels, etc.) and increasing energy security (e.g. use of local renewable energy sources, use of district energy systems, etc.).

Analysis

Development Activity

Phase 1 of the proposed RGDEU service area includes a range of mixed-use or multi-family residential buildings. Current developers include: Onni, Cressey, Intracorp, Amacon, Aspac and Polygon. Final occupancy for most projects is expected within the next 3+ years but the first phases of Polygon’s (Carrera) and Onni’s (Riva) projects have already begun construction, with

anticipated occupancy in the summer of 2015. Anticipated occupancy for the above projects is summarized in Table 1.

Table 1: Development Timing in RGDEU Service Area

	Anticipated Occupancy
Onni (Riva)	2015 (Summer)
Polygon (Carrera)	2015 (Summer)
Cressey (Cadence)	2016
Intracorp (River Park Place)	2016
Amacon (Tempo)	2016
Aspac (Parcel 9 & 12)	2016/2017

Proposed Bylaw and Service Area

Building on the Alexandra DEU Service Area Bylaw, a bylaw has been prepared for Phase 1 of the River Green DEU (Attachment 1). The Phase 1 service area defined in the bylaw includes all active developments in the Oval Village area as outlined above. As directed by Council, to consider interim DE services outside of the Phase 1 service area, an additional, non-contiguous site is also proposed to be included in the service area. Staff have been working with Polygon to provide heat and hot water services for their Carrera development located along Minoru Boulevard. As other developments emerge in the neighbourhood, staff will bring to Council options for expansion of the RGDEU service area boundary. To leverage economies of scale and realize the long-term social, economic and environmental benefits of the DEU, expansion to service future development is a key opportunity.

Benefits of scale relate to:

- Increasing distribution piping efficiency
- Balancing energy demand and load requirements across a broader customer base
- Maximizing potential for introducing waste heat as an energy source
- Facilitate fuel switching
- Increasing energy security and reliability of service
- Reducing greenhouse gas emissions

Proposed Rate Structure

The rate structure in the draft bylaw represents the blended rate that is equal to or lower than conventional energy costs (called the “business as usual” (BAU) costs that represent conventional baseboard and natural gas heating systems) for the same level of service. The BAU costs of energy for space heating and hot water heating are estimated to be between \$8.00 and \$9.00 per m²/yr (\$80-\$90 per MWh). Details on the BAU costs are provided in Attachment 2. For RGDEU, the rate structure will be refined once costs have been confirmed through the design and engineering phase. Staff will bring forward an amendment to the bylaw with a revised rate structure recommendation for Council’s consideration in early 2015. The rate in the bylaw is consistent with energy rate assumptions that were used for the purposes of business planning to determine the viability of DE in the River Green.

consistent with energy rate assumptions that were used for the purposes of business planning to determine the viability of DE in the River Green.

Staffing

The Chair of Lulu Island Energy Company will be considering additional staffing requirements as a result of the adoption of this bylaw. DEU in Richmond was established on the basis that all capital and operating costs will be recovered through revenues from user fees, making the DEUs financially self-sustaining over the long term. An estimated 0.3 - 0.5 FTE staff demand is anticipated to manage contracts and support implementation of RGDEU Phase 1 infrastructure. Due to ongoing growth and expansion of the Alexandra District Energy Utility (ADEU), implementation of DEU-ready buildings at the Building Permit stage, administration requirements to manage the establishment and management of Lulu Island Energy Company, and addressing business developing opportunities for DEU (e.g. Minoru Park new City facilities, City Centre north), the need for an additional staff member has been identified.

Stakeholder Consultation

Staff have been in contact and discussions with RGDEU developers and landowners throughout the due diligence and business and infrastructure agreements process with Corix. Staff also provide regular updates on RGDEU and ADEU through the Richmond Urban Development Institute (UDI) Liaison Committee. Meetings were held in January and February 2014 to review the draft Service Area Bylaw and Service Agreement with developers. The development community had a number of questions mostly related to the energy costs to end users and who will have the control over the setting customer rates. Other questions of concerns were identified are summarized in Table 1. Staff are confident that stakeholder concerns have been addressed in the proposed bylaw.

Table 1: Summary of Stakeholder Input

Question/Concern	Response
What will be the cost to the end users?	The cost to the customers will be less than or equal to conventional system energy costs based on the same level of service.
Who will have the control over the rates?	Rates will be reviewed and determined by Council on yearly basis, consistent with current practice with ADEU.
The bylaw and servicing agreement requires that developers will be responsible to acquire easements from a third party if DE pipes cross properties. This should be the responsibility of the utility provider or City, not the developer.	The City modeled this provision on similar agreements currently used by other municipal DEU's and BC Hydro and Fortis. The City prefers that all servicing is provided through the fronting street, not across property lines. It may occur that pipes cross property lines and it is a good utility practice to ensure this provision is included in contracts. However, the City anticipates that it will be an extremely rare occurrence, if it occurs at all. A landowner would be required to obtain this easement through RZ or DP considerations no matter what the circumstances (similar to access rights for road, water, and sewer). Staff have changed the approach to indicate that the City would assume responsibility to acquire the easement but the developer assume the cost in response to developer concerns.

Question/Concern	Response
Can the City exclude properties west of the Oval as part of the Service Area Bylaw?	These lands were rezoned by the City and then sold some time ago. As the DEU was not planned at this time, the Title did not reflect DEU connection and DE-ready building requirements like recently approved buildings. However, in 2008, a Memorandum of Understanding was executed between the City and the landowner committing both parties to work together to assess the feasibility of a district energy utility for their developments. The landowner entered into the agreement based on the understanding that all developments in the area should have the same "level playing field" and connect to RGDEU. Since these lands have rezoning completed, we will not be able to connect them to RGDEU without their inclusion in the bylaw. Therefore, staff recommend maintaining these lands in the Service Area Bylaw.

Financial Impact

Adoption of the Bylaw and subsequent execution of the RGDEU agreements with Corix Utilities Services Ltd will commit the City to the development of the first phase of the DEU. A separate staff report presented options for Council to consider with respect to financial implications of entering into an agreement with Corix.

Conclusion

Establishment of the DEU's in the City represent one of the most significant advancements to date towards meeting the City's sustainability and GHG reduction goals. Staff recommend that the River Green District Energy Utility Bylaw No. 9134 be introduced and given first, second and third reading to facilitate the implementation of phase 1 of the RGDEU.



Peter Russell
Senior Manager, Sustainability and District Energy
(604-276-4130)

PR:pr

- Att. 1: River Green District Energy Utility Bylaw No. 9134
2: District Energy Rate Structure and User Cost Assumptions



City of
Richmond

Bylaw 9134

River Green 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 domestic water heating and, when available, space cooling, to multi-family, residential, commercial, institutional and industrial buildings located within the City’s municipal boundaries as more particularly detailed in Schedule A to this Bylaw.

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

1. **Name of Bylaw.** This Bylaw shall be known and cited for all purposes as “River Green District Energy Utility Bylaw No. 9134.”
2. **Defined terms.** All capitalized terms used in this Bylaw and the schedules hereto have the meanings given in Schedule B to this Bylaw.
3. **Establishment.** 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 space heating and domestic water heating at any Designated Property within the Service Area, including potential for such district energy utility system to be expanded to include space cooling services.
4. **Ownership of DEU.** Ownership of the DEU, including any expansion or extension of the DEU, is to remain vested in the City or the Service Provider, and their respective 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.
5. **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 domestic hot water, and when available, space cooling, in accordance with the terms and conditions of this Bylaw.
6. **Permissive Use of DEU.** An Owner of an existing building located either inside the Service Area, or located outside the Service Area but within the City of Richmond, may apply to the City Engineer to utilize the DEU, and if:

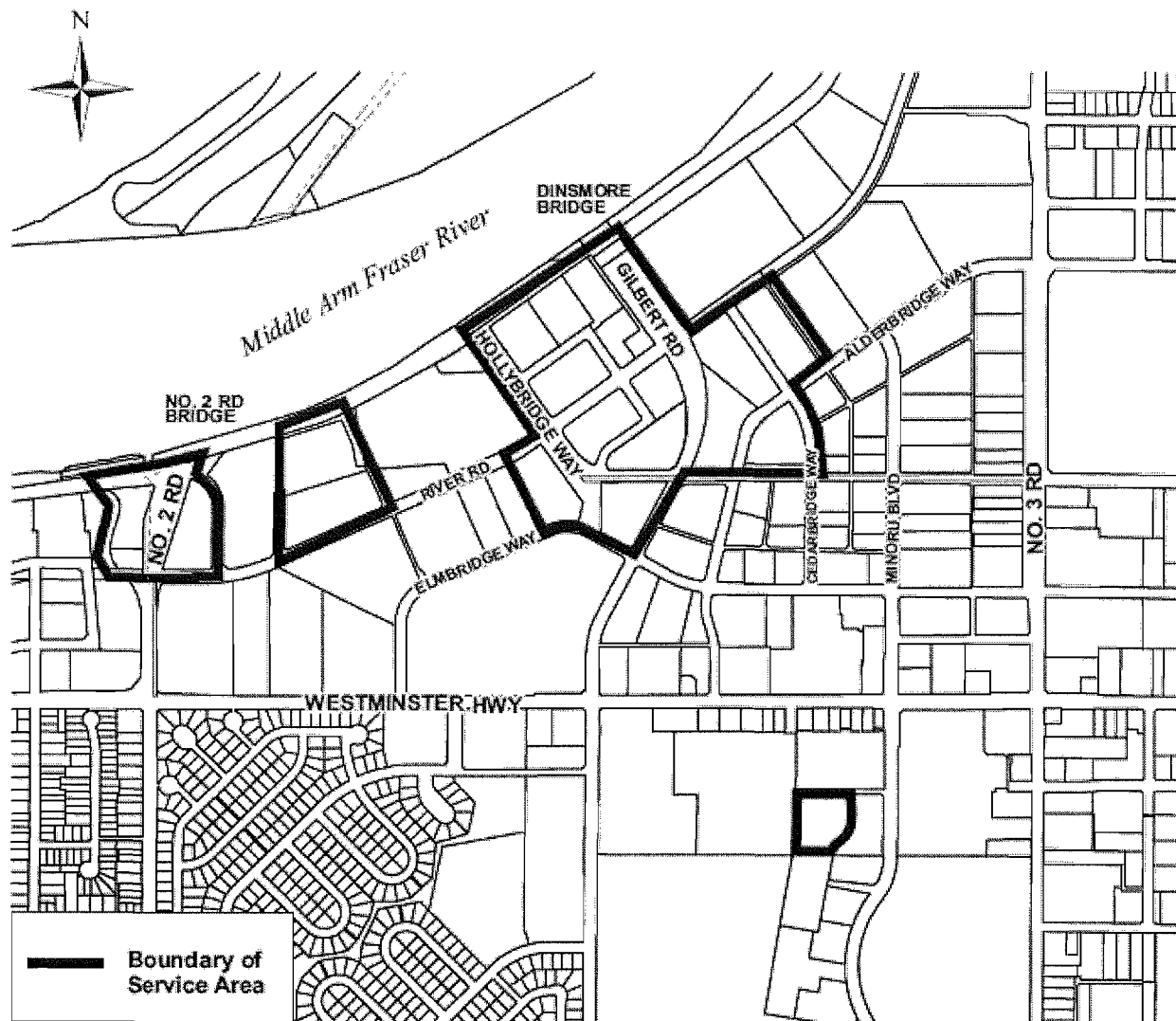
- (a) the City Engineer is of the opinion that the DEU is capable of servicing the building that is the subject of the application;
- (b) the City Engineer is of the opinion that servicing the building is necessary or desirable; and
- (c) the Owner enters into an agreement with the City, in form and 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 building 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.

- 7. **General Terms and Conditions.** The Services shall be provided and used in accordance with the terms and conditions described in Schedule B to this Bylaw.
- 8. **Rates and Charges.** The rates and charges payable in respect of the Services shall be those described in Schedule D to this Bylaw, which shall be based on the cost of providing, maintaining and expanding the Services and which may be different for different Designated Properties based upon the use, capacity and consumption of those Designated Properties. Unless otherwise indicated or advised by the Service Provider, all rates, charges and fees payable under this Bylaw are payable to the Service Provider.
- 9. **Operation.** The City may operate the DEU and provide the Services directly, or through one or more other Service Providers.
- 10. **Access.** The City authorizes its officers and employees and the officers, employees, agents, servants, contractors and subcontractors of the Service Provider to enter onto any property or into any building applying for, connecting or connected to or using the Services or required to apply for connect to and use the Services to connect or disconnect the Services and to inspect and determine whether all regulations, prohibitions and requirements contained in this Bylaw and the General Terms and Conditions are being met, or for any other related purpose which the Service Provider requires.
- 11. **Security.** The City authorizes its officers and employees and the officers and employees of the Service Provider to require persons applying for, connecting or connected to or using the Services to provide security with respect to the Services in an amount determined by the City or the Service Provider, in accordance with the General Terms and Conditions.
- 12. **Discontinuance.** The City or the Service Provider may discontinue providing the Service to a person or property in accordance with and for the reasons specified in the General Terms and Conditions, including because of:
 - (a) unpaid fees or taxes in relation to the Services;

SCHEDULE A

Boundaries of Service Area



SCHEDULE B

GENERAL TERMS AND CONDITIONS

PART 1: INTERPRETATION

1.1 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 12.2 of these General Terms and Conditions;
- (b) **“building”** means any multi-family residential, commercial, institutional and industrial buildings, and includes new and existing buildings described in Sections 5 and 6 of the Bylaw;
- (c) **“building mechanical system”** means a DEU-compatible mechanical system, including an internal space heating and cooling and domestic water heating distribution system, for a building located on Designated Property that is to receive the Services;
- (d) **“Bylaw”** means the River Green District Energy Utility Bylaw No. 9134 to which these General Terms and Conditions are attached and form part of;
- (e) **“City Engineer”** means the individual appointed by Council from time to time to be the General Manager of the Engineering and Public Works Department of the City, or his or her designate;
- (f) **“City Solicitor”** means the individual appointed by Council from time to time to be the City Solicitor of the Law Division of the City, or his or her designate;
- (g) **“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;
- (h) **“Council”** means the Council of the City of Richmond;
- (i) **“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;
- (j) **“Delivery Point”** means the outlet of the Heat Exchanger;
- (k) **“Designated Property”** means the building(s) to which this Bylaw applies pursuant to Sections 5 and 6 of the Bylaw;
- (l) **“DEU”** means the district energy generation and utility system referred to in Section 3 of the 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;

- (m) **“Director, Building Approvals”** means the individual so appointed by Council from time to time, or his or her designate;
- (n) **“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;
- (o) **“Energy”** means heated fluid and cooled fluid;
- (p) **“General Terms & Conditions”** means these general terms and conditions as amended from time to time by the Council of the City of Richmond;
- (q) **“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;
- (r) **“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;
- (s) **“Heating”** means the energy transferred for the purpose of raising the ambient air or domestic hot water temperature in a Designated Property;
- (t) **“Meter Set”** means an assembly of metering and ancillary equipment, including Heat Exchangers, that measure the amount of Energy consumed by a Customer;
- (u) **“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;
- (v) **“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;

- (w) **“Rates”** means, collectively, the fixed monthly charges, capacity charges and volumetric charges specified in Schedule D (Rates and Charges) for Services, as amended from time to time;
- (x) **“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;
- (y) **“Service Related Charges”** include, but are not limited to, the fees specified in Schedule C (Fees), the rates and charges specified in Schedule D (Rates and Charges), GST, PST and all other taxes applicable to the Services;
- (z) **“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;
- (aa) **“Services Agreement”** has the meaning given in Section 3.1 of these General Terms and Conditions;
- (bb) **“Service Connection”** means that portion of the DEU extending from the Distribution System to the Delivery Point;
- (cc) **“Service Provider”** means such Person or Persons 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
- (dd) **“Strata Lot”** has the meaning given in *Strata Property Act*.

PART 2: APPLICATION REQUIREMENTS

2.1 Application for Services

An Owner of a Designated Property that must utilize the DEU pursuant to Section 5 of the Bylaw, and an Owner of a Designated Property seeking the Services pursuant to Section 6 of the Bylaw, must apply to the Service Provider for the Services at least 120 days before the date the Owner requires the Services.

2.2 Required Documents

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

2.3 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.

2.4 Required References

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

2.5 Refusal of Application

The Service Provider may refuse to accept an application for Services for any of the reasons listed in Section 15 below (Discontinuance of Services and Refusal of Services).

PART 3: AGREEMENT TO PROVIDE SERVICE**3.1 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.

3.2 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 3.1(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.

3.3 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 3.2 above; or
- (b) the date that the Service Provider commences the provision of Services to the Owner’s Designated Property.

3.4 No Assignment/Transfer

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

PART 4: Connecting for services**4.1 Service Connection**

Subject to Section 4.5 below, the Service Provider will serve each Designated Property with one Service Connection. Each Designated Property will be installed with its own Meter Set.

4.2 Installation of Service Connection by Service Provider

The Service Provider will:

- (a) together with the Director, Building Approvals, 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 to ensure sufficient and safe access thereto;
- (b) supply and install the Heat Exchanger and Meter Set upon payment of the applicable installation fees set out in Schedule C (Fees) to this Bylaw; and
- (c) supply and 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 upon payment of the applicable installation fees set out in Schedule C (Fees) to this Bylaw.

4.3 Installation of Service Connection by Customer

An Owner or Customer may make an application to the Service Provider requesting prior written approval for the Owner or Customer, at its sole cost and expense, to:

- (a) supply and install the Heat Exchanger and Meter Set; and/or
- (b) supply and 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,

and the Service Provider, may, in its sole discretion:

- (c) approve such application subject to the Service Provider being satisfied with the design, materials, equipment, location and installation of the Heat Exchanger, Meter Set and Service Connection; and
- (d) waive or reduce payment of the applicable installation fees set out in Schedule C (Fees) to this Bylaw.

4.4 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 additional costs as advised 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.

4.5 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 C (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.

4.6 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.

4.7 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 statutory right of way to be registered against title to the Designated Property in

favour of the City, in the form or forms supplied by the Service Provider, for the installation, operation, maintenances and related services on the Designated Property of all necessary facilities for supplying the Services to the Designated Property. Each such Section 219 covenant and statutory right of way will have priority over any other financial encumbrances registered against title 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 be responsible for all costs of obtaining licenses, statutory rights of way, easements, leases or other agreements, the form and content of which shall be as determined in the sole discretion of the City, for non-exclusive access to, on, over and under such properties in favour of the City, for the purposes of performing installation, operation, maintenances and related services on each intervening property of all necessary facilities for supplying the Services to the Designated Property.

4.8 Maintenance by Service Provider

Subject to Section 4.9 below, the Service Provider will maintain the Service Connection, Heat Exchanger and Meter Set.

4.9 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 fluids in the building mechanical system sufficiently to prevent corrosion of the Heat Exchangers.

4.10 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.

4.11 Damage

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

4.12 No Obstruction

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

4.13 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 5: HEAT EXCHANGERS, METER SETS AND METERING**5.1 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.

5.2 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 megawatt hours and rounded to the nearest one-tenth of a megawatt hour.

5.3 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 8.1 (Fees for application) below;
 - (ii) the cost of removing, replacing and testing the Meter Set will be borne by the Service Provider subject to Section 17.4 (Responsibility for Heat Exchanger and Meter Set) below; 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.

5.4 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 11.7 (Incorrect Register) below.

5.5 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 17.4 (Responsibility for Heat Exchanger and Meter Set) below.

5.6 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.

5.7 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.

5.8 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, then in addition to the provisions of section 9.4 (Basis of Fees):

- (a) the Service Provider will give the Customer an estimate of the cost; and
- (b) 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 6: DEU EXPANSIONS AND EXTENSIONS

6.1 Expansion and Extension

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

PART 7: ACCESS

7.1 Access to Designated Property

The Customer must provide free access to, and the Service Provider and its authorized officers, employees, agents, servants, contractors and subcontractors have the right of entry, at any reasonable time and except in the case of emergency, upon reasonable notice, 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.

7.2 Access to Equipment

The Customer must at all reasonable times and except in the case of emergency, upon reasonable notice, provide clear access to the Service Provider's equipment including the equipment described in section 7.1 above.

PART 8: APPLICATION AND SERVICE CONNECTION INSTALLATION FEES

8.1 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 C, Fees.

8.2 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 14.2 (Right to Restrict) below.

8.3 Reactivation Fees

If Services are terminated

- (a) for any of the reasons described in Section 15 (Discontinuance of Service and Refusal of Services) of this bylaw; or
- (b) to permit a Customer to make alterations to their Designated Property,
- (c) 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:
- (d) the costs the Service Provider incurs in de-activating and re-activating the Services; or
- (e) the sum of the applicable minimum Rates and charges set out in Schedule D (Rates and Charges) which would have been paid by the Customer between the time of termination and the time of reactivation of Services.

8.4 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.

PART 9: RATES, CHARGES, FEES AND OTHER COSTS

9.1 Rates Payable

Each Customer must pay to the Service Provider the applicable Rates for the Services as specified in Part 1 of Schedule D (Rates and Charges), as amended from time to time.

9.2 Excess demand fee

Pursuant to section 19.1(f), a building permit applicant must pay to the Service Provider the excess demand fee set out in Part 2 of Schedule D (Rates and Charges).

9.3 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.

9.4 Basis of Fees

- (a) The fees specified in Schedule C (Fees) shall be estimated fees 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.
- (b) Where an Owner, Customer or other person is to have work done or Services received at cost, all fees payable shall be payable in advance before commencement of the work.
- (c) After completion of the work, the Service Provider will notify the Owner, Customer or other person of the actual cost.
- (d) If the actual cost is more than the estimated cost, the Owner, Customer or other person will be liable for and 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 will refund to the Owner, Customer or other person the excess, except that if the Customer owes any money under this Bylaw at that time, the Service Provider may apply the excess against such debt.

PART 10: SECURITY FOR PAYMENT OF BILLS**10.1 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.

10.2 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 C (Fees). Subject to Section 10.5 (Application of Deposit), 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.

10.3 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.

10.4 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.

10.5 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 15 (Discontinuance of Services and Refusal of Services) below, discontinue Services to the Customer for failure to pay for Services on time.

10.6 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.

10.7 Failure to Provide Security Deposit

Failure to provide a 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 15 (Discontinuance of Service and Refusal of Service).

PART 11: BILLING**11.1 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.

11.2 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 to the Service Provider;
- (b) the date when the bill is due and payable;
- (c) acceptable places and methods of payment; and
- (d) the number of megawatt hours of heat energy supplied to the Heat Exchanger and Meter Set.

11.3 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.

11.4 Multiple Meters

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

11.5 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.

11.6 Estimated Final Reading

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

11.7 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 12 (Back-Billing).

11.8 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.

11.9 Bill Due Dates

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

11.10 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.

11.11 Historical Billing Information

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

PART 12: BACK-BILLING**12.1 When Required**

The Service Provider may, in the circumstances specified herein, charge and demand, and the Service Provider may collect or receive, from Customers for the Services received, 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.

12.2 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 (under-billed). 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.

12.3 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.

12.4 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 12.7 (Under-Billing) to 12.10 (Changes in Occupancy), below, will not apply;
- (b) the Customer is liable for the direct administrative costs incurred by the Service Provider and the City 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 computed at the rate and at the times specified in Schedule C (Fees) until the amount under-billed is paid in full.

12.5 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.

12.6 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 C (Fees), will also be credited to the Customer's account.

12.7 Under-billing

Subject to Section 12.4 (Tampering/Fraud) above, 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.

12.8 Terms of Repayment

Subject to Section 12.4 (Tampering/Fraud) above, 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.

12.9 Disputed Back-bills

Subject to Section 12.4 (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.

12.10 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 13: LATE PAYMENT AND RETURNED CHEQUE CHARGES**13.1 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 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 C (Fees) in the next bill to the Customer.

13.2 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 Schedule C (Fees) 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 the Bylaw and these General Terms and Conditions.

13.3 Collection as Taxes

Any amount due from a Customer to the Service Provider for Services or any Service Related Charges that remains unpaid by December 31 of the year in which 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 14: INTERRUPTION OF SERVICE

14.1 Regular Supply

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

14.2 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 believed to exist or anticipated 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.

14.3 Notice

The Service Provider will, to the extent practicable, give notice of any service limitations under Section 14.2 (Right to Restrict) to its Customers by:

- (a) newspaper, radio or television announcement; or
- (b) in accordance with Section 21.1 (Service of Notices).

14.4 Failure to Comply

If, in the opinion of the Service Provider, a Customer has failed to comply with any requirement under Section 14.2 (Right to Restrict), then the Service Provider may, after providing notice to the Customer in the manner specified in Section 21.1 (Service of Notices), discontinue Services to the Customer.

PART 15: DISCONTINUANCE OF SERVICES AND REFUSAL OF SERVICES**15.1 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 failed to pay the bill for Services and/or Service Related Charges 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 bill for Services 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 bill for Services 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 for Services and/or Service Related Charges;
- (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.

15.2 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:
- (d) may lead to a dangerous situation; or
- (e) may cause undue or abnormal fluctuations in the temperature of Energy in the DEU;
- (f) 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);
- (g) the Customer breaches any of the terms and conditions upon which Services are provided to the Customer by the Service Provider;
- (h) the Customer fraudulently misrepresents to the Service Provider its use of Energy or the volume delivered;
- (i) the Customer vacates the Designated Property that is receiving the Services; or
- (j) the Customer stops consuming Energy at the Designated Property.

PART 16: TERMINATION OF SERVICE AGREEMENT**16.1 Termination by the Service Provider**

Subject to applicable federal, provincial and local government laws, statutes, regulations, bylaws, orders and policies, the Service Provider may terminate a Services Agreement by giving the Customer at least 48 hours written notice if Services are discontinued under Section 15 (Discontinuance of Services and Refusal of Services).

16.2 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.

16.3 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;

16.4 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 17: LIMITATIONS ON LIABILITY**17.1 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.

17.2 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.

17.3 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.

17.4 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).

17.5 Customer Indemnification

The Customer will indemnify and hold harmless the Service Provider, and the City if the City is 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 18: OFFENCES UNDER BYLAW

18.1 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.

18.2 Fine for offence

Every person who commits an offence against the Bylaw and these General Terms and Conditions 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 4.9 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 the Bylaw and these General Terms and Conditions is liable to a fine of not less than \$500.00 for each offence.

18.3 Fine for continuing offence

Each day that an offence continues is a separate offence.

18.4 Tampering with DEU

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

PART 19: BUILDING PERMIT REQUIREMENTS FOR DEU COMPATIBLE BUILDING MECHANICAL SYSTEMS

19.1 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 4.7, to be registered against title to the Designated Property prior to building permit being issued;
- (c) mechanical and other plans and documentation as the City Engineer may require, signed or certified by the registered professional responsible for design of the building mechanical system;
- (d) a certificate signed by the Service Provider, acting as the City's agent for this limited purpose, that the specifications, design, mechanical and other plans relating to the building mechanical system are compatible with the DEU;

- (e) an energy modelling report, 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; and
 - (iv) hour by hour consumption of energy;
- (f) a cheque in the amount of:
 - (i) the excess demand fee as specified in Part 2 of Schedule D; and
 - (ii) the service connection installation fee, as specified in Schedule C (Fees); and
 - (iii) building permit application DEU review fee, as specified in Schedule C (Fees). For certainty, the building permit application DEU review fee shall, notwithstanding section 9.4, be a fixed fee and not an estimated fee;
- (g) the proposed location of the Heat Exchanger and Meter Set, certified by the Service Provider as approved;
- (h) the proposed location of Distribution System components in or on the Designated Property, certified by the Service Provider as approved;
- (i) the proposed location of the Delivery Points, certified by the Service Provider as approved;
- (j) the proposed schedule for installation or alteration of the building mechanical system;
- (k) the proposed commencement date for the delivery of Energy by the Service Provider to the Heat Exchanger and Meter Set; and
- (l) such other information as the Service Provider or City Engineer may require.

19.2 Submission of copy of application

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

19.3 Approval of Energy modelling report

The report submitted under section 19.1(e) is subject to approval by the City Engineer.

19.4 Approval of Locations - General

The location of each of the:

- (a) Heat Exchanger and Meter Set, submitted under section 19.1(g);
- (b) Distribution System components in or on the Designated Property, submitted under section 19.1(h); and
- (c) Delivery Points, submitted under section 19.1(i);

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

19.5 Approval of schedule

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

19.6 Design of building mechanical system

The design of the building mechanical system is subject to approval by the City Engineer following certification by the Service Provider under section 19.1(d).

19.7 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 the Bylaw and these General Terms and Conditions.

19.8 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.

19.9 Signed Services Agreement required

No building permit for a building mechanical system will be issued until a Services Agreement has been signed relating to the Designated Property.

PART 20: DESIGN AND INSTALLATION OR ALTERATION OF BUILDING MECHANICAL SYSTEM

20.1 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.

20.2 Prohibited components and primary source

A building mechanical system must utilize the DEU for not less than 100%, or such other lesser quantity as approved by the City Engineer, of all the annual space heating and domestic water heating requirements, and when available, space cooling requirements, for a building on a Designated Property as determined in the energy modelling report

required under section 19.1(e). An Owner must not itself perform, provide, install or realize, nor allow any other Person to perform, provide, install or realize any other system to provide primary domestic hot water and Heating to any building on the Designated Property, and must not allow or consent to any other Person supplying or distributing primary domestic hot water and Heating to any building on the Designated Property, except that:

- (a) a person who is altering an existing building may retain components otherwise prohibited under this section 20.2 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;
- (b) unless pre-approved in writing by the City Engineer, in-suite gas fireplaces are not permitted; and
- (c) unless pre-approved in writing by the City Engineer, gas make-up air units are not permitted.

20.3 Scheduling

An applicant must:

- (a) ensure that installation of the building mechanical system proceeds in accordance with the schedule approved under section 19.5, and any changes to the schedule approved under this section 20.3; 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.

20.4 Service Provider's scheduling

To the extent the City Engineer and Service Provider consider it necessary, convenient, or financially prudent, the Service Provider will 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.

20.5 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.

20.6 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 20.5, and the Owner has paid the Service Provider all applicable fees and charges in accordance with section 9.4.

PART 21: MISCELLANEOUS AND GENERAL PROVISIONS**21.1 Service of Notices**

All written notices 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.

21.2 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.

21.3 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.

21.4 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.

21.5 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.

21.6 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.

21.7 Additions, Alterations and Amendments

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

SCHEDULE C**Fees**

Bylaw Section	General Terms and Conditions Section	Application	Fee
6		Application for voluntary use of energy utility system	BY ESTIMATE
	4.1	Service Connection Installation Fee	BY ESTIMATE
	4.4	Customer requested routing	BY ESTIMATE
	4.9	Service call during Service Provider's normal business hours	\$150.00
	4.9	Service call outside Service Provider's normal business hours	\$400.00
	5.3	Application for meter test	\$400.00
	5.8	Application to remove, relocate, or alter energy transfer station or distribution system extension servicing	\$400.00
	8.3	Reactivation fee	BY ESTIMATE
	8.4	Re-identification of Meter Set	BY ESTIMATE
	9.2	Application for service to Designated Property	No charge
	10.2 & 12.6 & 12.4(c)	Interest on security deposit and over-billed amounts and under-billed amounts	Bank of Canada prime rate minus 2% per annum payable monthly
	13.1	Late Payment Charge	\$100.00
	13.2	Cheque returned to the Service Provider	\$100.00
	19.1	Building permit application DEU review fee charged in addition to building permit application fee under Building Regulation Bylaw.	2% of the Building Permit fee

SCHEDULE D

Rates and Charges

PART 1 - 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 \$0.07 per square foot of gross floor area;
and
- (b) volumetric charge – a monthly charge of \$0.00 per megawatt hour of Energy
returned from the Heat Exchanger and Meter Set at the Designated Property.

PART 2 - EXCESS DEMAND FEE

Excess demand fee of \$0.14 for each watt per square foot of the aggregate of the estimated peak heat energy demand referred to in section 19.1(e) (i), (ii), and (iii) that exceeds 6 watts per square foot.

District Energy Rate Structure and User Cost Assumptions

DEU's in Richmond includes master metering for each building. The DEU service provider would read the meters and send a monthly or quarterly bill to the strata council or property management company, which in turn would distribute the charge to individual unit owners based on unit square footage (unit entitlement). This charge would likely be embedded in the general strata fee. This is the same method that is currently used for Alexandra DEU energy billing.

It is possible to provide individual unit metering, but the cost can exceed \$5,000 per unit. For this reason, unit level metering has not been pursued. Regardless of cost, there is also more limited value in providing individual metering for heat energy from a DEU system in a multi-tenant building for the following reasons:

- Once the DEU is constructed, there is almost no marginal cost to providing additional heating to a building, the capital and operating cost recovery needs remain the same month to month through high demand periods in winter and low demand in the spring and fall. Therefore there is little opportunity or need to vary the rate with demand.
- Space heating is a more general commodity within a building than other energy demands. Heat is transferred between units and common spaces and is never fully contained at the supply point. Measurements in existing multi-family buildings in Vancouver have shown that as much as 70% of the total heating requirements in a building can be supplied from the common spaces through air flow to the individual units. Individual metering then becomes a less meaningful measure of individual benefit.
- A given multi-family building will almost always have a uniform insulation and heating system design and this will be the most significant factor that determines the energy usage for heating throughout the building's life. Occupant behaviour is a factor as well, but the primary opportunity to create energy savings is with the design and construction of the building. Master metering of the building provides equity between buildings and recognises the benefits of more efficient building designs.

Establishing "Business as Usual" Customer Rates

In the absence of this DEU proposal and Council's DE-Ready Building requirements at rezoning, typical multi-unit residential buildings would be built with electrical baseboard heaters for in-suite heating, gas fired make-up air units for common space heating and gas fired boilers for hot water heating. This is referred to as a Business as Usual (BAU) scenario as is the basis for comparing DEU costs with conventional utility, energy and maintenance costs. The BAU cost that the end user would have to pay would consist of utility bills, strata maintenance fees which would include energy plant operation and maintenance, commodity costs for hot water heating and common space heating (e.g. electricity and natural gas), and unit purchase price which would include a cost for the energy plant (see below).

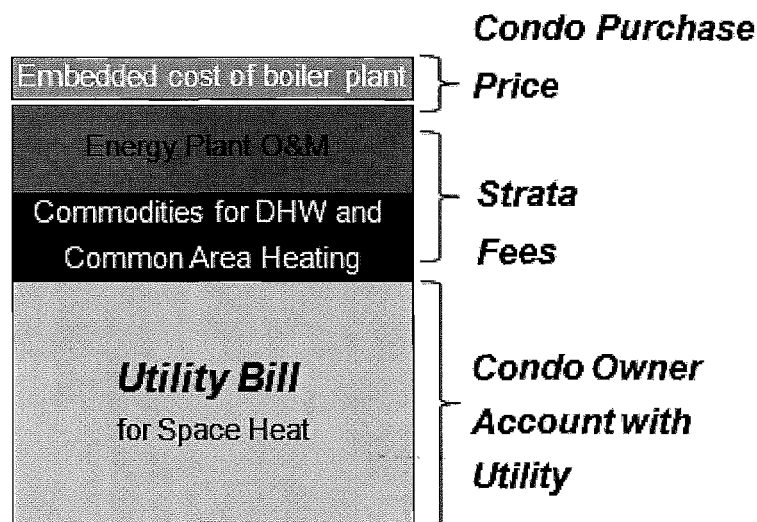
The capital and operating costs for BAU heating systems have historically been lower than any other available technology, however for many reasons electrical heating systems are becoming less attractive and are not considered to be a sustainable energy system because:

- Electricity rates are likely to rise dramatically in BC, as much as 33% in the next four years.
- Peak electricity demand in BC is currently met with imported fossil fuel generated power, which increases greenhouse gas emissions and reliance on a depleting resource. This is one of the key reasons for the existence of BC Hydro's Power Smart program which is designed to reduce electrical demand wherever possible.
- Electricity is high grade power that is most effectively applied to high grade uses (i.e. lighting, appliances). Heating and cooling requires only low grade power that can be more efficiently supplied by district energy systems with renewable energy sources such as sewer heat recovery.

**Business as Usual Cost for
Energy = \$80-90/MWh**
(today's costs)

*User pays more than just utility
bill for supply of thermal energy*

*Std industry cost for comparing
DEU to conventional systems.*



The BAU cost to the consumer for space heating and hot water heating in a multi-unit residential building has been estimated to be between \$80 - \$90/MWh annually, based on the independent studies performed by Compass Resource Management, Associated Engineering and Pacific Institute for Climate Solutions. This number equates to \$8.00 – \$9.00 per m2 annually. Actual consumers in multi-unit residential buildings will experience a range of costs depending on the building condition, amenities and fuel costs.

DEU cost to the customer necessary to support the proposed business case is between \$88 and \$90 per m2 annually, which is the same as the BAU cost of \$8.00 – \$9.00 per m2 annually. The business plan for DEUs in Richmond, consistent with the City's approach to ADEU, assumes an annual rate adjustment of 4% calculated as a 2% increase above the estimated 2% CPI.

A comparison of RGDEU and other DEUs in the region is included below, highlighting RGDEU's competitiveness with other DEU's as it relates to customer rates.

