



General Purposes Committee

**Anderson Room, City Hall
6911 No. 3 Road**

**Monday, December 3, 2012
4:00 p.m.**

Pg. # ITEM

MINUTES

GP-5 *Motion to adopt the minutes of the meeting of the General Purposes Committee held on Monday, November 19, 2012.*



LAW AND COMMUNITY SAFETY DEPARTMENT

1. **RICHMOND SISTER CITY COMMITTEE – 2011 YEAR IN REVIEW**
(File Ref. No.) (REDMS No. 3651453)

GP-9

See Page **GP-9** for full report

Designated Speaker: Amarjeet Rattan

STAFF RECOMMENDATION

That the Richmond Sister City Committee 2011 Year In Review, attached to the report dated September 12, 2012 from the Director, Intergovernmental Relations and Protocol Unit, be received for information.



Pg. # ITEM

COMMUNITY SERVICES DEPARTMENT

2. **UBCM AGE-FRIENDLY COMMUNITY PLANNING AND PROJECT GRANT APPLICATION**
(File Ref. No.) (REDMS No. 3708063)

GP-21

See Page GP-21 for full report

Designated Speaker: Dena Kae Beno

STAFF RECOMMENDATION

That an application for a UBCM 2013 Age Friendly Community Planning and Project Grant be endorsed, the purpose of which is to fund the project titled “Kiwanis Towers: Ready, Set, Plan – A Collaborative Stakeholder Process to Support Health Tenancy in a Seniors Affordable Housing Project”.



ENGINEERING AND PUBLIC WORKS DEPARTMENT

3. **GOVERNANCE & FINANCING - ALEXANDRA DISTRICT ENERGY UTILITY**
(File Ref. No.) (REDMS No. 3442906)

GP-29

See Page GP-29 for full report

Designated Speakers: Cecilia Achiam & John Irving

STAFF RECOMMENDATION

That Council:

- (1) *authorize staff to incorporate a wholly owned local government corporation including:*
- (a) *naming the corporation Lulu Island Energy Company (pending name availability)(LIEC) with the City of Richmond as the sole share holder to own and operate the Alexandra District Energy Utility (ADEU);*
 - (b) *authorizing the Chief Administrative Officer and the General Manager, Engineering and Public Works to execute legal agreements and documentation related to the incorporation;*

Pg. # ITEM

- (2) *authorize staff to explore the merits of external borrowing of up to \$6M to finance phase 3 of the ADEU and report to Council through Committee on the budget impacts to future capital projects;*
- (3) *re-classify the District Energy Manager position from Temporary Full Time (TFT) to Regular Full Time (RFT); and*
- (4) *approve the creation of a Position Control Complement (PCC) for the District Energy Manager position.*

ADJOURNMENT



General Purposes Committee

Date: Monday, November 19, 2012

Place: Anderson Room
Richmond City Hall

Present: Mayor Malcolm D. Brodie, Chair
Councillor Chak Au
Councillor Linda Barnes
Councillor Ken Johnston
Councillor Bill McNulty
Councillor Linda McPhail
Councillor Harold Steves

Absent: Councillor Derek Dang
Councillor Evelina Halsey-Brandt

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, November 5, 2012, be adopted as circulated.

CARRIED

COMMUNITY SERVICES DEPARTMENT

1. **RICHMOND CELEBRATES SCOTIABANK HOCKEY DAY IN CANADA 2013**

(File Ref. No. 11-7400-20-HDAY1/2012) (REDMS No. 3685824 V.6)

A discussion ensued among members of Committee and Cathryn Volkering Carlile, General Manager, Community Services about:

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- the impact of the National Hockey League (NHL) strike on the Scotiabank Hockey Day in Canada 2013 event. It was noted that discussions with CBC indicated that the event may not be televised nationally, and that there is no impact anticipated for the event as a result of the NHL strike;
- the budget for the 2013 event in comparison to 2012. It was noted that the budget had been reduced for 2013;
- how the event will be taking place on the Family Day long weekend as well as Chinese New Year. A brief discussion took place about the feasibility of combining the event with Chinese New Year's events; and
- the need to provide opportunities for youth to interact with hockey idols and other celebrities.

It was moved and seconded

That:

- (1) *the City contribute up to \$58,000 from the Major Event Provisional Fund for the Richmond Celebrates Scotiabank Hockey Day in Canada event at the Richmond Olympic Oval on February 9, 2013; and*
- (2) *that the City's budget for the 2013 Hockey Day event be included in the 5 Year Financial Plan (2013-2017).*

CARRIED

2. **RICHMOND OLYMPIC EXPERIENCE ADVISORY COMMITTEE
COUNCIL LIAISON**
(File Ref. No. 01-0005-01/2012) (REDMS No. 3702547)

It was moved and seconded

That Councillor Bill McNulty be appointed as Council Liaison to the Richmond Olympic Experience Advisory Committee as outlined in the staff report from the Director, Arts, Culture and Heritage Services dated November 6, 2012.

CARRIED

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ENGINEERING AND PUBLIC WORKS DEPARTMENT

3. 2013 UTILITY BUDGETS AND RATES

(File Ref. No.: 03-0970-01/2012) (REDMS No.3699344 v.3)

Suzanne Bycraft, Manager, Fleet & Environmental Programs, accompanied by Jerry Chong, Director, Finance, highlighted the key impact on the budget as a result of challenges related to increasing costs outside of the City's control.

A discussion then ensued about the various service sections and in particular on:

- opportunities for expansion of the toilet rebate program;
- opportunities for expansion of the residential water metering program. It was noted that participation in the water metering program was still on a voluntary basis, and discussion took place about the feasibility of making the program mandatory in the future; and
- the increased annual operating costs of the solid waste and recycling program and how the associated costs reflected in the budget are prorated to correspond with the June, 2013 implementation date. Discussion also took place about the success and future expansion of the solid waste and recycling program.

It was moved and seconded

That:

- (1) *the 2013 Utility Expenditure Budgets, as outlined under Option 3 for Water, Sewer, Drainage & Diking, and Option 2 for Solid Waste & Recycling as contained in the staff report dated November 14, 2012 from the General Managers of Finance & Corporate Services and Engineering & Public Works, be approved as the basis for establishing the 2013 Utility Rates and for preparing the 5 Year Financial Plan (2013-2017) Bylaw;*
- (2) *the Chief Administrative Officer and General Manager, Engineering & Public Works be authorized to negotiate and execute an amendment to Contract T.2988, Residential Solid Waste & Recycling Collection Services, to:*
 - (a) *include acquisition, storage, assembly, labelling, delivery, replacement and related tasks for the carts and kitchen containers associated with an expanded yard trimmings/food scraps recycling program at a one-time cost of up to \$3 million (excluding HST);*

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- (b) add yard trimmings/food scraps collection and large item pickup services to townhomes with blue box service, effective June 3, 2013;*
- (c) add collection of yard trimming/food scraps using City-provided carts and large item pickup services to residents in single-family homes effective June 3, 2013;*
- (d) revise the annual contract amount to approximately \$5,788,664 (depending on contract variables such as inflationary and unit count increases), effective June 3, 2013;*
- (e) extend the term of the contract to December 31, 2017;*
- (3) the existing agreement (dated September, 2010) with Neptune Technology be extended for one year, ending December 31, 2013, using the 2010 unit rates with an adjustment made for the HST to GST/PST conversion effective April 1, 2013.*

The question on the motion was not called, as a brief discussion ensued about the green cart program. It was noted that a contingency fund has been build into the program to provide new residents with complimentary carts and for the replacement of damaged carts. Staff was requested to present a report on the implementation of the program before it is rolled out.

The question on the motion was then called, and it was **CARRIED**.

ADJOURNMENT

It was moved and seconded
That the meeting adjourn (4:29 p.m.).

CARRIED

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, November 19, 2012.

Mayor Malcolm D. Brodie
Chair

Shanan Sarbjit Dhaliwal
Executive Assistant
City Clerk's Office



City of Richmond

Report to Committee

To: General Purposes Committee **Date:** September 12, 2012
From: Amarjeet Rattan **File:**
 Director, Intergovernmental Relations &
 Protocol Unit
Re: Richmond Sister City Committee - 2011 Year In Review

Staff Recommendation

That the Richmond Sister City Committee 2011 Year In Review, attached to the report dated September 12, 2012 from the Director, Intergovernmental Relations and Protocol Unit, be received for information.

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

Att. 2011 Annual Report

| REPORT CONCURRENCE | | | |
|---|-------------------------------------|---------------------------------------|----------------------|
| ROUTED TO: | CONCURRENCE | CONCURRENCE OF GENERAL MANAGER | |
| Finance Division | <input checked="" type="checkbox"/> | | |
| REVIEWED BY SMT SUBCOMMITTEE | INITIALS: | REVIEWED BY CAO | INITIALS: |

Staff Report

Origin

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 2012.

This report presents the Richmond Sister City Committee (RSCC) 2011 Year In Review Report, which supports the Council Term Goals related to developing strategic intergovernmental relations.

Analysis

The RSCC activities and events during 2011 are outlined in **Attachment 1**.

Some of the highlights for 2011 include:

- On April 12th Vice Mayor Zhan of Xiamen and his delegation visited the City of Richmond. The highlight of the visit was the signing of the letter of intent for a Sister City Relationship with the City of Xiamen
- A Tourism Agreement with the City of Qingdao, in Richmond was signed on March 21st.
- The school exchange to Wakayama was unfortunately cancelled due to the Tsunami. With regard to the Japan earthquake, fundraising in Steveston was directed towards the fishing village of Onagawa. A fundraiser walk raised \$110,000 which was leveraged through contacts in Japan to provide additional relief and aid to the students and youth of Onagawa.

Financial Impact

The 2011-2013 approved RSCC Program budget is \$234,410. Expenditures for the 2011 Sister City operating and program activities were \$14,437.

Conclusion

The 2011 RSCC activities and events provide a foundation to further strengthen the existing Sister and Friendship City relationships.



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

AR:ar

The City of Richmond

Sister City Committee Year In Review 2011



January

- Acclaimed Chair of the Sister City Committee.

The following positions were acclaimed:

- a) **Pierrefonds Vice Chair**
Francis Turmeau
Pierrefonds Alternate Vice Chair
Priscilla Bollo
- b) **Wakayama Vice Chair**
Jim Kojima
Wakayama Alternate Vice Chair
Donalda Buie
- c) **Qingdao Vice Chair**
Wei Liu
Qingdao Alternate Vice Chair
Carol Zheng
- d) **Xiamen Vice Chair**
Weiping Liu
Xiamen Alternate Vice Chair
Juliana Yung

February

- A SCC New Years dinner was held Feb 4th which was hosted by the Qingdao Fellowship Association. During the celebration possible future activities were discussed.
- Sylvia Gwozd, Richard Toda, Amarjeet Rattan and Jim Kojima were invited to the Consul General of Japan's residence on February 15th for a dinner reception. Many officials across the Lower Mainland were asked to do a presentation on their Sister City Program. Our SCC was honoured to receive an email from Tetsuya Isono, *Consul for Cultural Affairs and Consulate General of Japan in Vancouver*, expressing that "I believe your Twin City relation is one of the best practice in Canada." As a result Mayor Wayne Wright, City of New Westminster invited Sylvia Gwozd to attend the New Westminster International Trade Committee. The City of New Westminster would like to discuss how they can expand their reach internationally through our SCC community participation model. Policies have been provided for their information.



- On February 16th there was a visit from the Xiamen Trade Development Group who toured with the CFCC. A reception was held at City Hall in the morning. In the afternoon the City's Economic Development Officer took the group for a tour around Richmond. During the evening, the CFCC hosted a dinner with guests from the Chinese Consulate, the Richmond Chamber of Commerce, and the SCC.



March

- Trustee Debbie Tablotney was to follow-up on the French Immersion Programs in secondary schools and their relationship with Pierrefonds. She was to meet with the new Communications Manager to discuss social media opportunities in order to connect students from both the communities.
- Jim Kojima reported on the Wakayama school exchange program and the Richmond Schools visit to Japan this year. A total of 33 students were expected to participate. Jim discussed the cost for students and was trying to keep the cost down. The dates are May 13 – May 24, 2011. Donalda was to assist in greeting students and arranging for flag pins. (note this delegation cancelled due to Tsunami in Japan)
- Qingdao Tourism delegation visited here March 21st to promote Qingdao Tourism through a seminar which took place in Vancouver. Li Meng from the Qingdao Tourism Administration travelled with Mr. Wang Jiangong, the Director of Qingdao Tourism Administration. They have proposed and made a submission to sign a Cooperative Agreement with Tourism Richmond.

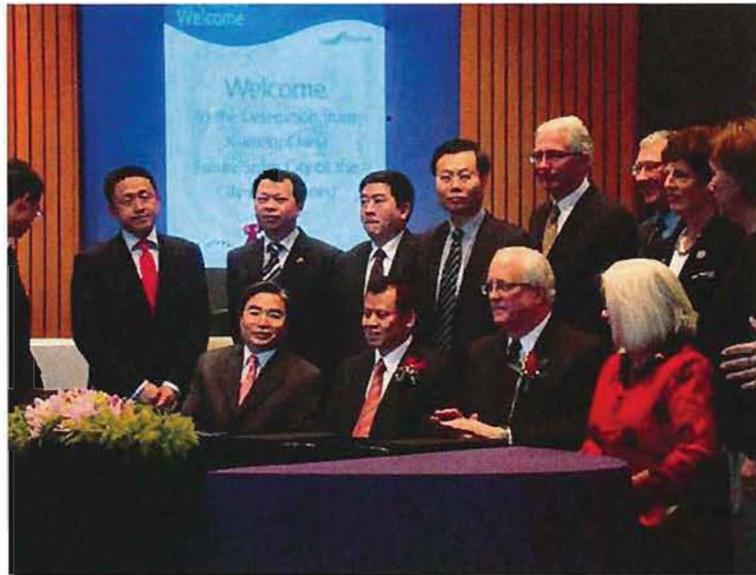
- Weiping reported on the official announcement of the new Mayor of Xiamen Mayor Liu Keqing.
- Weiping reported on an upcoming visit by Vice Mayor Zhan in April or May. An official invitation letter has been issued by the Mayor.
- Planning began for the participation of the Sister City Committee in the July 1st Steveston Salmon Festival Parade.
- Discussions were held on the additional requests for Friendship relations in China.
- Discussions were also held on possible Sister City relations in other countries such as China, Japan, Korea and India.
- The 2011-2012 Activity Plan and Budget was presented to the City’s General Purposes Meeting and approved.
- International Relations Task Force meeting. Attending from the City of New Westminster was Mayor Wright, two City Councillors and senior staff. From the Sister City Committee Sylvia Gwozd and Richard Toda attended.
- Officially signed Tourism Agreement with the City of Qingdao, in Richmond on Monday March 21st.

April

- The school exchange to Wakayama was cancelled due to the Tsunami. With regard to the Japan earthquake, Steveston adopted a fishing village in Onagawa. The fundraiser walk raised \$110,000. The Mayor of Fukushima made a YouTube video with respect to the Nuclear Plant, expressing deep gratitude for all the support they have received.



- The Sister City Committee lends its support drafting a letter to endorse the “Catch and Release” project to be shown in Wakayama. The art exhibition "Catch and Release: Mapping Stories of Geographic and Cultural Transitions" was developed with federal support from the Social Sciences and Humanities Research Council of Canada. It was well received at the Gulf of Georgia Cannery last year. The project is based on the idea of the fishing idea and how we are all connected to fishing. It is a collage of a video footage where we interviewed a biologist, salmon fishermen and a chef at the cannery.



- On April 12th Vice Mayor Zhan and his delegation visited the City of Richmond. The highlight of the visit was the signing of the letter of intent for a Sister City Relationship with the City of Xiamen.





May

- Received a letter from Dr. Iwahashi thanking the citizens of Richmond and the Sister City Committee for their concern and assistance after the earthquake in Japan. They are hoping to see exchange students for their 40th Anniversary. There was a request to bring a children's choir to Wakayama. Wakayama is also helping with Onagawa City.
- Jim Kojima returned to Onagawa with 3 boxes of children's materials from School District 38 which were given to seven schools in Onagawa. Some of the children were planning to go to Wakayama City in August and to billet the children. The School Board were finding billets. The money raised was to go directly to Onagawa, through the Mayor's office was to assist.
- Richmond quilters made 75 memory quilts for 75 children who lost everything as a result of the Tsunami.
- Passing of Councillor Yasukaza Ishitani. A letter of condolence was sent on behalf of the Sister City Committee.
- Qingdao plans to send a delegation of about 20 plus to attend an Officers Training Program as they are trying to get certification overseas. They contacted the RSCC to see if the RSCC can supply the names of institutions for the program, noting that they only need contacts and Qingdao Personnel Bureau would negotiate with the institution; Kwantlen was interested in hosting and has forwarded the contact information. Trinity Western University is a possible suggestion, when they open in Richmond in 1 – 2 years.
- LED delegation arrived on the long weekend. Weiping spoke with the delegation, and they commented that "Richmond feels like home, but cleaner."

- Starting June 15th China Southern has direct flights 3 days a week. Dora Kay, Senior Policy Advisor on Asia for YVR joined our advisory committee.
- The City received a donation from Richmond Steel to supply students with media opportunities. The RSCC will consider developing some type of legacy project that can be sent to Japan. Also, a video was to be developed for future students, sponsors and parents. At present the RSCC do not have any multi-media to promote the SCC initiatives and this project would be a welcome addition.
- The possibility of the Sister City Committee having a Facebook page and all it entails was considered. Work began to collect, classify and archive Sister City Documents.
- The Steveston Community Society has released a book called the Steveston Community History. Councillor Bill McNulty performed the research for the book. The book covers the year 1859 to present. The Steveston Community Society is selling the book for \$20 of which \$10 goes to Onagawa and \$10 goes back to the community centre. There were 1000 copies available.
- Councillor Bill McNulty started researching the Sister City history in time for the 40th anniversary with Wakayama.
- A Xiamen Artist Delegation from the City of Xiamen held an exhibition in Aberdeen Center in May. They visited the Lower Mainland which included a visit to Richmond for a day and a half. There will be an opportunity for someone in Richmond with an Arts background to visit Xiamen to participate in their Arts Program.



June

- A Delegation of nine from Yantai visited Richmond on June 13th -15th. Sylvia Gwozd stated that the SCC was hosted by the City of Yantai in 2007 and that they had also visited Richmond in 2008. We would like to maintain an informal relationship with Yantai. Along with a meeting with the Mayor, we also gave them a tour of Richmond which included a tour of the farm program, Lulu Island and Sandhuz wineries. Yantai has offered our wine producers booths at their annual wine festival.

July

Steveston Salmon Festival



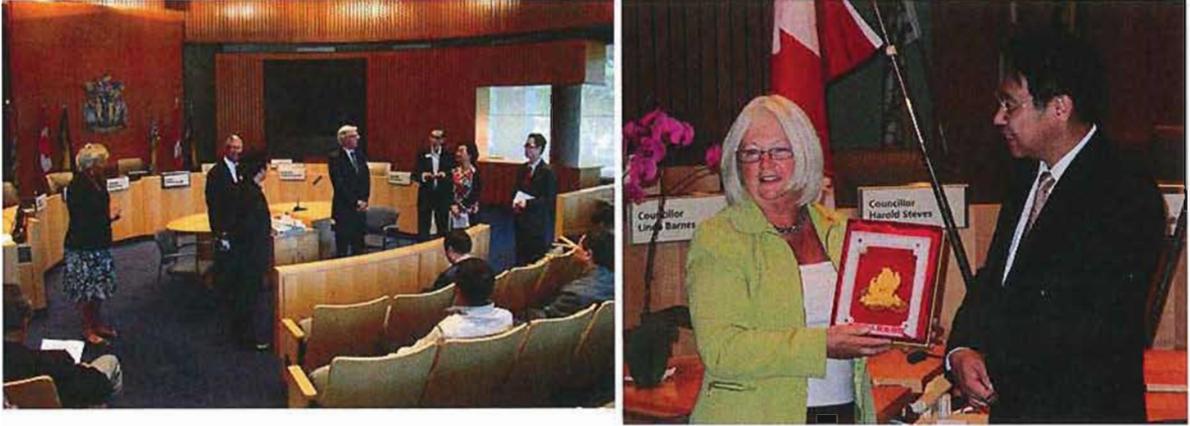
September

- Advisory member Kevin Lainchbury reported on his travels to Onagawa. While visiting he met with one of the teachers who was on a different island when the Tsunami hit. He circulated pictures of the devastation and shared how impressed he was with how much they had already done in cleaning the affected areas. Photos depicting shelters that had been made were shown. However, they were not being utilized since there was a cost to stay in the shelters. Instead they stayed at community centres where food and showers are free.
- Qingdao has been busy with festivals and the international trade show. They reported that the Municipal Personnel Bureau Training Program has found other resources. Qingdao will advise on future cooperative projects.
- Weiping Liu and Jim Kojima went to Xiamen for the CFIT ~ International Trade Show on September 8th – 11th. This is the 15th year for the trade fair. The China International Forum for Mayors of Sister Cities asked if our Mayor could attend this event. The decision was made that Weiping should attend the CFIT, as he was going for business anyway. Most of the costs have been sponsored by Xiamen and the agenda included their attendance at CFIT and spending a networking day at the friendship cities forum. We have been encouraged to work on education, post secondary education and tourism which can make our City more attractive. There is interest in working on partnerships with the Richmond Youth Concert Band. Xiamen sends 600 youth a year to Toronto for education. Xiamen advised that the new flights have 90 percent outbound loads. The pictures from Xiamen's cultural display at Aberdeen centre now belong to the RSCC and will be displayed at the Gulf of Georgia Cannery for market day. The pictures will also be displayed at city hall in the near future.
- The Sister City Committee attended the Moon Festival dinner with the Xiamen Native Association at Sun Sui Wah Seafood Restaurant on September 12th.

- Tracy Lakeman CEO, Tourism Richmond, and Dora Kay, Senior Policy Advisor Asia YVR, provided a presentation on current and future airport connections. Tracy Lakeman advised they had a strategic planning session and they discussed if we want to expand with China and what direction do we want to take. With finite resources they want to best anticipate the needs and volume of Chinese visitors. Moreover, they would like statistics on where they are staying and for how long, which is very difficult to pinpoint. Also, they would like to know how many of the visitors are here for business and how many were here for leisure. We are trying to gather that information with YVR's assistance. Once we find those key areas then we can expand in our areas. Discussed our image ~ are we Vancouver or Richmond or are we both? How do we get that message across? Working in partnership with Vancouver, so we both win. The goal is to be an economic driver and tourism is the tool.
- Nancy Duff, Chairperson of the Fine Arts Department of Kwantlen Polytechnic University, who hosted the Xiamen delegation of artists, invited the delegation to coffee at her home as they were en route to Vancouver for a city tour.

October

- Sylvia Gwozd reported on a front page news story on a quilter who made 62 comfort quilts in support of the children of Onagawa. Sylvia brought a few of the quilts to show the RSCC. It was mentioned that \$85,000 has been raised so far for school supplies and students will be invited in 2012 with the support of Richmond education and given respite care.
- Richard Hudson, Director of the International Student Program with the Richmond Board of Education attended the Sister City Committee to discuss the current status and future plans of International Education in the School District. When he first came into the program there were 164 students and now it's grown to 500 this year in Richmond and includes elementary and secondary students. Mr. Hudson expressed their eagerness to work with the Sister City Committee, not only concerning Xiamen but for Wakayama as well.
- Jim Kojima visited Wakayama on October 26th to discuss next year's trip to Richmond for the 40th anniversary; at this point they will be coming next year. Work continues in buying product. Some donations are still coming in and our money is going directly to Onagawa.
- Priscilla continued to work on collecting SCC minutes and material, video's or Xiamen performances at City Hall for archival purposes. Also, Xiamen has nice framed versions of signed documents that took place 40+ years displayed. It would be nice to bring in a display including these documents. It was agreed that the Sister City Committee will make a display for the end of next year.
- Debbie Tablotney circulated the Board of Education Policy for review, advising the purpose for revision is not required until January. It was sent to the Policy Committee because of all the trips last time and the policy is out-dated, and several items need to be revisited. The basic issue of funding availability and the requirement of the Board to commit to the program was discussed. We need to encourage and support the protocol requirements between sister cities and should add friendship to the policy. We are trying to encourage international education and relationships and that should start with a mission statement and values.



November

- Craig Jones, Executive Director, Richmond Chamber of Commerce attended the Sister City meeting to discuss the business climate and provide an update on activities with the Xiamen General Chamber of Commerce. Richmond Chamber has had visits with Xiamen Chamber and continues to exchange information and produce a quarterly report which is transferred into Mandarin for 6000 plus members. The Chamber is in direct dialogue with members of the community that are looking for certain opportunities; have embarked on a number of Chamber companies that have ventured over looking to expand; have had dialogue on business travel with Silkway Travel; real estate is still a high interest, however it has slowed a little with the provincial government referendum going back to PST.
- Jim Kojima visited Onagawa in November with school supplies.
- The Committee reported that next year it is making an official visit to Xiamen and asked what the Chamber feels is beneficial in our relationship. Our community is 65 percent Asian origin and reaching out is important as it makes a positive growth statement. The Chamber believes this bridge we are building is positive and making Xiamen a full sister city solidifies that statement.
- Weiping Liu reported that Xiamen would like the Sister City agreement signed as soon as possible, hopefully before the Chinese New Year. Councillor Linda Barnes advised that Council approved the agreement in principle. It still requires work on the details of the agreement and on what that relationship will look like. We will also need to draft a terms of reference. Weiping informed the RSCC that he can get Xiamen's standard agreement for us to use as a base for us to work with.
- Richmond Board of Education – Sister City Policy Review. Committee members discussed and recommended changes and additions to the proposed updates to the School Board's Sister City Policy. These will be compiled by Debbie Tablotney and reported back to the School Board in 2012.
- Arrangements started for the Sister City Committee to participate in advertising in conjunction with the Parks Department Street Banner Program in 2013.

December

The Sister City Committee celebrated another busy year with a social at the home of Chair Sylvia Gwozd.



To: General Purposes Committee Date: November 16, 2012
 From: Cathryn Volkering Carlile File:
 General Manager, Community Services
 Re: **UBCM Age-Friendly Community Planning and Project Grant Application**

Staff Recommendation

That an application for a UBCM 2013 Age Friendly Community Planning and Project Grant be endorsed, the purpose of which is to fund the project entitled "Kiwanis Towers: Ready, Set, Plan – A Collaborative Stakeholder Process to Support Health Tenancy in a Seniors Affordable Housing Project".

Cathryn Volkering Carlile
General Manager, Community Services

Att. 2

| | |
|--|----------------------|
| REPORT CONCURRENCE | |
| CONCURRENCE OF GENERAL MANAGER | |
| REVIEWED BY SMT SUBCOMMITTEE | INITIALS: |
| REVIEWED BY CAO yes | INITIALS: |

Staff Report

Origin

Since 2007, in accordance with the World Health Organization Age-friendly Cities initiative, the Province has provided grants through the UBCM to support the development of age-friendly communities.

In 2008, the City received a UBCM Age-friendly grant to develop the “Decreasing Barriers, Increasing Wellness” project at Minoru Place Activity Centre. The grant was used to fund the planning and facilitation of health and wellness services to isolated frail seniors. Since receiving the UBCM pilot project funding, the program has been continuously funded by Vancouver Coastal Health.

This year, staff identified the need to plan supportive programming for future Kiwanis Towers residents as a priority for seeking a UBCM Age-friendly Grant.

The purpose of this report is to provide Council with information on the Age-Friendly Pilot Project that the City is applying to UBCM for- *“Kiwanis Towers...Ready, Set, Plan - A Collaborative Stakeholder Approach to Support Healthy Tenancy in a Seniors Affordable Housing Project”*, and to ask for Council’s support for the project. A Council resolution is required as part of the application process.

The report is consistent with Council’s adopted term goal #2 Community Social Services:

2.1 Completion of the development and implementation of a clear social services strategy for the City that articulates the City’s role, priorities and policies, as well as ensures these are effectively communicated to the public in order to appropriately target resources and help manage expectations.

Findings of Fact

At its July 16, 2012 Public Hearing, Council approved third reading to a rezoning application from Polygon and the Richmond Kiwanis Senior Citizens Housing Society for the proposed development of 296 one-bedroom units for seniors and associated resident amenity spaces.

Further, at its July 16, 2012 Public Hearing, Council approved the Kiwanis Towers proposed development as an Affordable Housing Special Development Circumstance, which included the recommendation for:

Staff to continue working with the Kiwanis to assist in the development of a tenant management plan to address: operation and tenant management, resident amenity planning, community networking, and partnership opportunities for the delivery of housing and resident programming.

In an effort to support the tenant management plan process, Staff and Kiwanis representatives have worked together to develop the concept, whereby 2013 UBCM grant funding will be sought to conduct a needs assessment and develop an implementation plan for the Kiwanis resident

amenity and tenant wellness programming. The UBCM requires that the City provide overall grant management. The City will seek maximum funding of \$20,000 to support this project.

The Richmond Kiwanis Senior Citizens Housing Society has resolved to support this grant application by the City (Attachment 1).

Analysis

Given that the Kiwanis Towers will house between 296 and 592 seniors, it is essential that the amenity space provided be used to maximize the well-being of residents. As indicated in the attached Expression of Interest (Attachment 2), healthy aging can be supported in a positive manner through ensuring individuals have access to programs and services that emphasize illness and injury prevention, personal choice, and community involvement. Social connection, health and wellness programs will provide significant benefits to residents while helping to ensure successful aging-in-place and minimizing health care costs.

The proposal is to seek funding to support the facilitation of a collaborative, community-driven needs assessment process and the development of an implementation plan to support:

- Isolated and low income seniors living in the Kiwanis Towers development with access to appropriate resident programs that increase their level of social connectedness, physical activity, nutrition, and positive resources for everyday living and independence;
- A sense of community, cross-cultural connections, and a socially inclusive vision to emerge from facility use and programs;
- A health and community service hub approach to the utilization of resident amenity spaces to enhance the ability of health and community service providers to reach a number of older adults living in one location;
- Opportunities for seniors to exercise personal choice and action in the interest of their own health through the provision of a range of age appropriate events, activities, and services; and
- Strengthened multi-sector involvement, community partnerships and in-kind support to coordinate and promote housing design that integrates an accessible, age-friendly physical environment with effective, age-appropriate resident wellness programs and activities to support senior health.

If the grant is received staff will amend the City's financial plan and expenditure bylaw accordingly. In addition, the City will provide overall grant management, administration and monitoring of outcomes and deliverables. Also, if the proposal is funded, a subsequent application will be submitted for the 2013-2014 UBCM Grant Application cycle to proceed with the implementation of long-range planning tools and the development of a Kiwanis resident wellness strategy and sustainability plan.

Financial Impact

None.

Conclusion

This UBCM grant application requests funding to conduct a needs assessment and develop an implementation plan to activate common amenity space, and provide systems and networks to support the delivery of programs and services. The goal is to provide Kiwanis Towers residents with access to appropriate resident programs that will increase social connectedness, physical activity, nutrition, and positive resources for everyday living and independence.



Dena Kae Beno
Affordable Housing Coordinator
(604-247-4946)

DKB:ls

Union of BC Municipalities 2013 Age-Friendly Community Planning & Project Grant

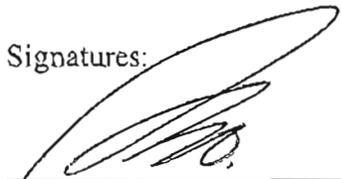
Application by the City of Richmond, November 2013

“Kiwanis Towers: Ready, Set, Plan - A Collaborative Stakeholder Approach to Support Health Tenancy in a Senior Affordable Housing Project”.

With respect to this application, developed by the City of Richmond in consultation with the Richmond Kiwanis Senior Citizens Housing Society, the following motion was passed:

The Richmond Kiwanis Senior Citizens Housing Society supports the application by the City of Richmond for a UBCM 2013 Age Friendly Community Planning and Project Grant for “Kiwanis Towers: Ready, Set, Plan - A Collaborative Stakeholder Approach to Support Health Tenancy in a Senior Affordable Housing Project”.

Signatures:


 Name Peter So

President
 Title (Signing Officer)

Nov 15, 2012
 Date


 Name Teri Buxton

Secretary - Treasurer
 Title (Signing Officer)

Nov. 15, 2012
 Date

Local Government Program Services
 Union of BC Municipalities
 525 Government Street
 Victoria, B.C. V8V 0A8

EXPRESSION OF INTEREST-

FUNDING CATEGORY: Age-Friendly Community Planning and Project Grant

PROJECT TITLE: Kiwanis Towers...Ready, Set, Plan – A Collaborative Stakeholder Approach to Support Healthy Tenancy in a Seniors Affordable Housing Project

Satisfying and successful recreation experiences can promote social integration, improve physical and mental health, and enhance self-confidence; which makes significant contributions to self-determination, friendships, and social supports. As a result, these experiences provide the tools and resources for individuals to stay in their home for as long as possible. While many Richmond seniors live exceptionally healthy lives, the older adult community in Richmond is diverse.

The proposed Kiwanis Towers development is a subsidized rental development for seniors with 296 one-bedroom units and associated resident amenity spaces in Richmond, B.C. This development is in the rezoning stage and has involved an innovative multi-stakeholder approach to leverage public, private, and non-profit investment to generate much needed senior rental housing through the primary efforts of: Kiwanis Seniors Housing Society, Polygon Homes Ltd., City of Richmond, and BC Housing. In addition, the project is supported by numerous community partners to build continued, long-term relationships with Kiwanis for the delivery of tenant programs that emphasize healthy living and aging, including: Vancouver Coastal Health Authority, Minoru Seniors Society, and CHIMO Crisis Services, to name a few.

DESCRIPTION OF PROPOSED ACTIVITIES:

Coordinating a needs assessment process and development of an implementation plan to:

- Activate common amenity space at a low-income seniors' housing development, and
- Provide systems and networks to support the delivery of programs and services

GOALS OF THE PROJECT

- To provide a coordinated approach to service delivery amongst different levels of government and community partners.
- To ensure there is a sense of belonging for the seniors who reside in the housing development through the collaborative development of an integrated, community resident amenity program.
- To generate an implementation plan to support the effective and continuous delivery for resident access to appropriate programs and active engagement.
- To encourage social connection to counter the effects of social isolation.
- To help realise the City of Richmond's Affordable Housing Strategy vision: "the City of Richmond has recognized the importance of ensuring that all residents have access to suitable and appropriate housing with the necessary community supports to serve the needs of a diverse population."
- To build and strengthen community partnerships for the effective delivery of age-friendly and appropriate resident amenity programming.

The heart of the project is to ensure Kiwanis tenants have access to low cost, community wellness programs. The proposed project will be a community driven, collaborative planning process to develop a resident amenity space and programming needs assessment and implementation plan. The project will serve as a "catalyst of action" to incorporate community stakeholder input to explore and determine the appropriate programs, partnerships, and resources that are required to support 296 to

592 seniors living in one location. The project will be facilitated in partnership with the City of Richmond and Richmond Kiwanis Senior Citizens Housing Society to gather local health and community services, Richmond Seniors, and future tenants' perspectives to develop the needs assessment and age-friendly implementation plan. The pilot project will assist Kiwanis in the effective delivery of proactive tenant wellness and amenity planning approach to sustain and support tenant health and well-being, while contributing to a thriving, diverse senior community that is healthy, active, and aging well.

PROPOSED ACTIVITIES

An Integrated Stakeholder and community-based action research project to develop a Kiwanis Resident Wellness approach through the completion of a:

- 1) **Community needs assessment to identify potential programs, services, and collaborative and multi-sector partnerships to support access by Kiwanis residents to community service and health programs; which maintains and improves physical, emotional and mental health in a physical environment that integrates age-friendly features.**

The Global Age-Friendly Cities Guide will be used to inform the framework and guiding principles to focus on opportunities to support active aging, health and participation. The described activities will include an emphasis on the themes of: Maintaining Independence and Preventing Disability, Social Participation, Respect and Social Inclusion, and Community Support and Health. This community driven process will support the strategic directions of Richmond's Affordable Housing Strategy and Older Adults Service Plan. Partnering with a variety of local residents, future Kiwanis residents, diverse community partners, and local service providers will be a key element of the assessment and decision-making process.

- 2) **Implementation plan to support the effective delivery of resident wellness programs through the incorporation of multi-stakeholder input and best practice research to focus on the following key program components:**
 - Provide access to low-cost or free tenant wellness and illness prevention programs;
 - Decrease service barriers;
 - Increase tenant wellness, health and financial literacy;
 - Generate opportunities for social connection, referrals and support;
 - Engage seniors and community participation in the planning process;
 - Support efficient and sustainable delivery of services; and
 - Increase social connectedness and communication between culturally diverse groups.
- 3) **Long-range planning tools and recommendations for future incorporation into a resident wellness strategy and sustainability plan.**

If this proposal is funded, a subsequent application will be submitted for the 2013-2014 Grant Application cycle to proceed with the implementation of the final phase as noted in #3 above.

TIMELINE: The project will be planned in early 2013, the community needs assessment will be conducted early Spring through Summer 2013, the implementation plan will be developed in early Fall 2013, and the evaluation phase being concluded by November 2013.

COMMITTED PARTNERS:

- City of Richmond
- Richmond Kiwanis Senior Citizens Housing Society

- Vancouver Coastal Health
- BC Housing
- Minoru Seniors Place Executive
- Polygon Homes Ltd.
- Dagneault Planning
- Robert Ciccozzi Architecture, Inc.
- AWM Alliance Real Estate Group Ltd.
- PWL Partnership Landscape Architects Inc.
- CHIMO Crisis Services

PROPOSED PARTNERS:

Family Services, Richmond Food Security Society, Richmond Multi-Cultural Concerns Society, B.C. Non-Profit Housing Association, United Way, SUCCESS, Multi-Cultural Helping House, FIRST- Family Integration and Resources Support Team, Alzheimer’s Society, Richmond Community Services Advisory Committee, and Richmond Senior Advisory Committee.

ANTICIPATED BUDGET

Request to UBCM is \$20,000

- To support costs associated with the community needs assessment consultation process, focus group meetings, survey tool development and administration, replication materials, and progress report writing.
- To support costs associated with the development of an implementation plan, project evaluation processes, and the preparation of the final stakeholder report.

PRIMARY CONTACT:

Dena Kae Beno, Affordable Housing Coordinator
 City of Richmond, Community Social Development, Community Services Department
 604-247-4946 dbeno@richmond.ca

Conceptual Drawing of the Proposed Kiwanis Towers Project



- **296 units of subsidized rental housing for seniors and resident amenity spaces**
- **Strategic City Centre location- close to transit, city and senior services, and shopping**
- **Innovative collaboration- Kiwanis Society, Polygon, City of Richmond, and BC Housing**
- **Potential City financial support through the use of Affordable Housing Reserve Funds**
- **Housing and program delivery to be supported and strengthened through community partnerships**



To: General Purposes Committee

Date: November 15, 2012

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

File:

Cecilia Achiam, MCIP, BCSLA
Interim Director, Sustainability and District Energy

Re: **Governance & Financing - Alexandra District Energy Utility**

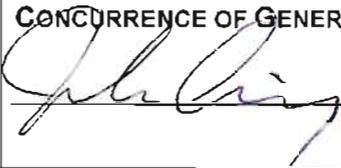
Staff Recommendation

That Council

1. Authorize staff to incorporate a wholly owned local government corporation including:
 - a) naming the corporation Lulu Island Energy Company (pending name availability) (LIEC) with the City of Richmond as the sole share holder to own and operate the Alexandra District Energy Utility (ADEU);
 - b) authorizing the Chief Administrative Officer and the General Manager, Engineering and Public Works to execute legal agreements and documentation related to the incorporation.
2. Authorize staff to explore the merits of external borrowing of up to \$6M to finance phase 3 of the ADEU and report to Council through Committee on the budget impacts to future capital projects.
3. Re-classify the District Energy Manager position from Temporary Full Time (TFT) to Regular Full Time (RFT); and
4. Approve the creation of a Position Control Complement (PCC) for the District Energy Manager position.

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

Cecilia Achiam, MCIP, BCSLA
Interim Director, Sustainability and District Energy
(604-276-4122)

| REPORT CONCURRENCE | | | |
|---|---|---|---|
| ROUTED TO: | CONCURRENCE | CONCURRENCE OF GENERAL MANAGER | |
| Budgets Law | <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> |  | |
| REVIEWED BY SMT SUBCOMMITTEE | INITIALS:  | REVIEWED BY CAO  | INITIALS:  |

Staff Report

Origin

At the Council meeting of January 10, 2011, Council supported the Alexandra District Energy Utility (ADEU) and adopted the following motions:

- 1. the Alexandra District Energy Utility Bylaw No. 8641 Amendment Bylaw No. 8688 be introduced and given first, second and third reading,*
- 2. subsequent to the adoption of the Amendment Bylaw No. 8688 staff bring forward to Council and amendment to the West Cambie Area Plan that would allow for the density bonus structure outlined in Attachment 3; and*
- 3. that by the Spring of 2011, staff report back with information related to a governance model, an explanation of financing options, and the incremental implementation of the District Utility Energy.*

The purpose of this report is to provide response to item #3. As a result of the fire at the Remy project in May, 2011, the commissioning of phases 1 and 2 of the ADEU was rescheduled. Staff used this additional time to analyse and identify efficiencies and improvements to the system design and implementation review. The official opening of the ADEU occurred on September 6, 2012.

Background

Phases 1 and 2 of the ADEU have been created in partnership with Oris Geo Energy Ltd. The partnering agreement envisioned heating and cooling services being provided (mainly through ground source geothermal systems at the outset) to Oris Developments' two projects, Alexandra Gate and Remy, comprising of 453 residential units in total (see ADEU Map in **Attachment 1**).

Council adopted the Alexandra District Energy Utility Bylaw No. 8641 Amendment Bylaw No. 8688 on January 24, 2011 which expanded the service area of the ADEU to include most of the Alexandra neighbourhood. This gives the ADEU the potential to encompass 3100 units and 1.1 million sq. ft. of commercial space at build out over an estimated 10 to 15 year period.

To date Council has approved \$6M of borrowing from the City's Water Utility Reserve to fund the design and construction of ADEU Phases 1 and 2. These funds will be repaid with interest from service fee revenue in accordance to the attached estimated timeline for development and funding requirements through to build-out of the ADEU (**Attachment 2**).

The rescheduling of the ADEU commissioning and the servicing of a non-Oris building (Mayfair) prior to servicing of the two Oris projects (Remy and Alexandra Gate) was not envisioned in the partnering agreement. There are no identified risks to the ADEU or the City as a result of these changes at this time, however staff will be completing full reviews with external legal counsel and will report back to council for consideration of any options for City action in this area.

Analysis

Renewable energy based District Energy Utilities are a relatively new concept in the Lower Mainland. The governance and regulatory models vary across jurisdictions. Traditionally, City utilities, such as water and sewer, are administered by City departments within the municipal services. The establishment of ADEU provides an opportunity to evaluate other models. Governance is a key issue for consideration for expansion of the ADEU as it will influence decisions on ownership, financing, and the operational structure.

The ADEU was established on the basis that all capital and operating costs will ultimately be recovered through revenues from user fees, making the ADEU financially self-sustaining over the long term. Expansion of the ADEU as endorsed by Council creates additional resource demands and triggers the need for additional staff and operational funding that would be supported through the increased ADEU revenue. The challenge is finding the most suitable interim financing mechanism to support the development of the utility during the initial capital intensive phases.

Generally, the City has provided financing for additional utility infrastructure from City reserves. Based on ADEU's ability to service debt, Council authorized external borrowing through the Municipal Finance Authority or other financial agencies to finance future expansion of the ADEU is also a viable alternative. The Alternative Approval Process under Part 4, Division 2 of the Community Charter will need to be followed if the City were to borrow externally. The findings of this report indicate that a corporation does not have to follow this process. However, depending on the worth of the corporate asset, the City, as the sole owner of the corporation, may need to act as loan guarantor.

Evaluation of governance and financing alternatives requires consideration of several criteria both from the ADEU and City perspectives. The most substantial criteria that require consideration in evaluating the governance alternatives are described below and formed the bases of the analysis completed for this report:

- Risk – Evaluation of financial risk exposure and liability
- Governance– Evaluation of the implication of the governance models on the City's ability to influence ADEU business decisions.
- Maintaining Competitive Utility Rates – Ability to maintain utility rates close to or less than conventional system energy costs based on the same level of service.
- Long Term Financial Commitment – Evaluation of the on-going long term financial commitment required from the City and the ADEU.
- Capital Investment – Evaluation of the capital investment requirement from the City and the ADEU.
- Green House Gases Reduction Benefits – Review of the ability to offset City's GHG targets.
- Grant or Alternative Funding Sources – Ability to access senior government grant funding.

- Implementation – Timing and associated costs.
- Operating Costs – Relative comparison of operating costs including estimated staffing implications.
- Customer Service – Ability for the ADEU to meet customer service levels and standards.
- Ability to Sell Utility – Ease of exit considerations should the City wish to divest itself of the ADEU.

An ownership model evaluation matrix (**Attachment 3**) summarizes the advantages and disadvantages of the three ownership models discussed in this section.

Governance

Governance alternatives that are to be considered relevant to the ADEU expansion must align with the key benefits that the City set out to achieve through the utility without substantially increasing risk. The selection of a specific governance model needs to take into consideration:

- City control to ensure accountability;
- Financing flexibility in relationship to impact on other core municipal services;
- Ability to adapt to new and appropriate technologies as the district energy system matures and service building area grows; and
- Need to be adaptable/responsive to market conditions – ability to adjust rates and service levels to meet market conditions and changing needs of the utility customers.

A matrix comparing the ownership model, governance and regulatory characteristics of four local District Energy Utilities including South East False Creek in Vancouver, Lower Lonsdale in North Vancouver, Docksider Green in Victoria and the proposed Surrey Civic Centre is provided in **Attachment 4**.

Regionally, arrangements range from municipally owned and operated on one end (e.g. South East False Creek) to wholly privately owned and operated (e.g. Docksider Green) at the other end. There are essentially three common governance models for a district energy utility that could be applied to ADEU:

| Model | Ownership | Operation |
|--|---------------------------------------|---|
| 1. City Direct Ownership and Operation | City | City departments (Engineering, Finance, Facilities, etc.), or contracting specific functions requiring external expertise |
| 2. Wholly City Owned Corporation | Private corporation owned by the City | Private corporation wholly owned by the City |
| 3. Private Ownership and Operation | Private | Private |

The *Ownership Model Evaluation Matrix* in **Attachment 3** provides comparison/comments on a variety of issues related to these ownership models including: risk (financial risk and operational liability), governance, utility rates, long term financial commitment, capital investment, and green house gas emission, while the following pages discuss each model in detail.

1. City Direct Ownership and Operation (*Current model- ADEU first development phase*)

In this model the City owns the entire ADEU infrastructure and operational demands are met with City staff resources. The City may, from time to time, utilize consultants and contractors for specialized areas of expertise while operating within the City’s existing administrative and governance structure. This would be similar to the City’s existing water and sanitary utilities.

The City of Vancouver has used a City Direct Ownership/Operation model to establish and operate the Southeast False Creek Neighbourhood Energy Utility. The City of Surrey is following a similar model with the Surrey Civic Centre District Energy Utility currently under development.

| Pros | Cons |
|---|---|
| Direct City control over the project. | City assumes all risks. |
| Lower cost of capital. | City must borrow from reserves or take on debt to finance capital requirements (may require referendum or Alternate Approval Process (APP) and/or approval of Inspector of Municipalities). |
| Council sets utility rates (Not BC Utilities Commission). | City must build and maintain in-house expertise (although many functions can be contracted). |
| Flexibility and synergies with existing City operations. | |

2. Wholly City Owned Corporation (Recommended)

Under this option, the City will establish a separate corporation to operate the utility with corporate and City staffing resources, and consultants and contractors, as required. This would be similar to the Richmond Olympic Oval Corporation.

Section 185 of the Community Charter provides the Inspector of Municipalities the authority to approve a wholly owned local government corporation. Under this model the City would create a wholly owned corporation, similar to the Richmond Olympic Oval Corporation (ROOC), where the ADEU is structured as a corporation with the City as its sole shareholder.

A corporation has its legal rights and liability as an entity separate from its owners (the shareholders) and is owned by shareholders who have the right to elect the Board of Directors as the governing body of the entity. The directors owe their fiduciary duty to the corporation. The City, as sole shareholder, has the right to vote for or remove the directors, change the constating documents, and approve the financial statement and annual report of the corporation.

Should Council select this option, it is suggested that the corporation be named Lulu Island Energy Company (LIEC) to preserve maximum flexibility for future expansion of district energy utilities in the City. A Partnering Agreement between the City and LIEC will define the City's expectations and the corporation's obligations and parameters of performance. Council, acting as the decision-maker on behalf of the sole shareholder (the City) appoints the LIEC board. It is also within Council's prerogative to delegate the selection of directors to nominating entities.

Under this arrangement, the LIEC board would report to Council on a regular basis as prescribed in the constating documents to provide updates on progress. The board will be responsible for overseeing the business of running a district energy utility.

The City of North Vancouver (CNV) has used this model to establish the Lonsdale Energy Corporation, which is a municipally-owned DEU. CNV has chosen to appoint only City staff members to Lonsdale Energy Corporation's Board of Directors. A similar approach may be suitable for LIEC given that the service delivered (thermal energy) is technical, well defined and unchanging over time.

| Pros | Cons |
|--|---|
| City control over the project. | Provincial approval required to create the corporation. Province will also establish some operational conditions. |
| Low risk of liability for the City. | Some minor additional costs and time for Board, administration, financial reporting, compliance with the Business Corporations Act, etc. |
| Corporation can borrow and take on debt independent of the City's finances. ¹ Borrowing is not limited to MFA but includes the general capital markets. Borrowing will be subject to controls in the corporation's Articles, such as shareholder approval for amounts beyond a specified threshold. | The City may be required to follow the Alternative Approval Process (APP) to take on debt to finance capital requirements (). |
| Council resolution may wish to include guaranteeing the borrowing of the corporation. | The Inspector of Municipalities has in the past requested that borrowing capabilities of municipal wholly-owned corporations include financial limits such that, if the corporation wishes to borrow or incur liabilities in excess of that amount, approval by the shareholder (City) is required and the City guaranteeing the borrowing may be an option |
| Council can set utility rates (Not BC Utilities Commission). | |

¹ If the City is required to directly or indirectly act as a guarantor of the debt (which may be requested by financial institutions knowing that the City owns 100% of the entity), it will be the same as the City acquiring external financing, thus the borrowing will still be subject to the City's municipal limit and also will require elector's approval (or the equivalent) as if the City directly borrows itself.

Can act as a private corporation with greater operational freedom, not limited by local government statutes.

City, as sole shareholder, can sell ADEU as an established corporation in future.

Corporation's financial management is distinct from the City's.

If the services to be offered by LIEC are being provided within City boundaries, and the City owns not less than 90% of the corporation, income tax will not be payable. Property tax exemptions may be available for a corporation under a partnering agreement with the City.

Unique to this option is the transfer of risk away from the City combined with full City control and avoidance of statutory limitations applicable to local governments. For these key reasons the creation of a wholly owned City corporation is the recommended option.

Should Council select this option, staff would bring forward a report outlining alternatives and making recommendations on board membership, and financing future phases with external borrowing.

3. Private Ownership and Operation

Under this option, the City would license a private entity to operate within its rights-of-way or otherwise sell the ADEU assets to a third party. The City's role may be limited to licensing the use of City rights-of-way. This would more closely match the model of existing energy utilities like BC Hydro and Fortis BC (formerly Terasen).

Should Council select this option, the City would have no continuing involvement with the ADEU, other than the first phase. An example of this model is Central Heat Distribution Ltd, which provides heating services in Vancouver's downtown core.

| Pros | Cons |
|--|--|
| All risks transferred to the private entity. | No City control over operations. Rates set by BC Utilities Commission. |
| Capital can be raised privately. | City revenue reduced to a licensing fee. |
| Private resources and expertise can be applied. | |
| Potential profit to the City through the sale of an established or existing DEU. | |

Private utility companies (such as BC Hydro and Fortis) have the right to establish utility infrastructure in City rights-of-way independently and the private sector could establish a DEU without any City support. This largely hasn't occurred to date as utility companies have not been able to secure customers on a scale that would support the capital allocation. The City has the ability to create a customer base through regulation and therefore has a critical role to play in DEU establishment.

Proposed Corporate Structure for LIEC

1. Board of Directors

Conceptually given the current size of the ADEU at this time, the governance structure is primarily that of a management committee to take care of technical and business interests. It is not anticipated that an external board with broader representation from the community and other business interests will be required to oversee the operation. The City is the sole shareholder of the corporation. Once the incorporation is completed, it is recommended that a board comprised of senior City staff with the necessary technical and business skills be put forward and that the CAO be appointed as the Chair of the founding board to carry through the necessary incorporation processes.

At this initial stage of the district energy utility, there is sufficient expertise within the City to populate the proposed board. The benefits of this approach include:

- No additional cost to the City for separate management staff from outside; and
- No single staff member is burdened with the entire responsibility of running and operating the district energy utility

As the operation of a district energy utility is largely technical in nature, the CAO would prefer to nominate the General Manager, Engineering and Public Works as the Chair of the proposed board once the initial board is in place. The board composition will undoubtedly be revised from time to time to ensure that the appropriate technical and business expertise are present to address the needs of the corporation. The membership of the board would be reviewed annually by the Council as the sole share holder of the corporation going forward.

Furthermore, the CAO has identified three additional staff with the appropriate technical and business skills to sit as board members on the propose board to administer the district energy for consideration by the share holder. The board composition may change in the future at the discretion of the CAO depending on the operational need of the district energy utility. Any changes will be included in the annual report to the share holder. The proposed first directors of the corporation are as follows:

George Duncan, CEO (on founding board to oversee the incorporation process)
Robert Gonzalez, GM, Engineering and Public Works (Chair)
John Irving, Director, Engineering
Jerry Chong, Director, Finance
Cecilia Achiam, Interim Director, Sustainability and District Energy

Council will receive formal annual report(s) on the financials, the appointment of directors for the following term and appointment of auditor, as well as updates via memorandum as appropriate.

2. Daily Operation

The City is able to manage most of the daily operation for the district energy utility at this time. The District Energy Manager function is currently being staffed as a temporary position (TFT). The billing is being handled by the Finance Department as the ADEU provides bills to individual buildings rather than each unit within the buildings. Initially, three to four additional billing accounts will be managed since billing will be done on building-by-building basis rather than to each dwelling unit as in the case of conventional utilities. It is estimated that 25% of a full time equivalent (FTE) position will be required for accounting and billing, and approximately 50% of the time of the District Energy Manager, TFT (Temp for 1 year), will be required to manage the ADEU in the start up phase.

Costs for operational personnel resources, including the District Energy Manager, accounts billing services and operation maintenance, have been built into the financial model. The costs are estimated at approximately \$50k in 2012 and \$70k in 2013, all of which would be funded ultimately from ADEU revenue. As with other elements of the financial model these amounts are dependent on the pace of development and system growth. It is estimated that at build-out the operational staff requirement would be approximately 2 to 3 FTE, which again would be fully funded from ADEU revenue.

Intermittent demand for technical support will be met initially through the use of consultants and contractors as is done for existing City facilities. The operation and serving of the equipments are contracted out to Corix Utility Inc. through a competitive bidding process. This company was selected based on their expertise, ability to work collaborative with staff and favourable pricing for the service. The ADEU Financial Analysis Model (**Attachment 6**) had accounted for the costs for all operational costs.

Incremental Implementation of the ADEU

Given that the sequencing of development and the energy needs of each development are not predetermined, the governance and funding approach must be flexible. For example, while two residential developments may have the same total square footage, the energy usage may differ by 100% depending on the building and heating, ventilation and air conditioning (HVAC) system design. Each infrastructure expansion phase will require consideration of the most efficient and prudent capital expenditure approach from the ADEU perspective in response to the proposed developments.

Depending on actual well-field performance, the \$6M Phase 1 and 2 capital investment will likely service more than the Remy and Mayfair developments, supporting the Omega development or Alexandra Gate as well. Additional capital requirements for Phase 3 will be triggered by the SmartCentres development in 2013, but could also be triggered by additional residential developments in that year.

As the demand for heating and cooling services grows in the Alexandra area, capital expenditures will be offset by additional revenues over time generating a positive rate of return. From sequencing perspective capital funds will be required in advance in order to design and construct the infrastructure so that the development can connect to the heating/cooling service. It is currently estimated that build-out of the ADEU to service approximately 3.18 million square feet of buildings would cost approximately \$18.3M beyond the currently allocated \$6M, for a total capital cost of \$24.3M in 2011 dollars (see **Attachment 5**). This assumes expansion based on the same geo-exchange technology on additional park land as used in the first phase. At the current pace of development, build-out would occur in approximately 10 years.

The projected schedule to reach project build-out and the associated capital and financial mechanism is summarized below:

| Project Phase | Capital Investment | Anticipated Construction Time | Financing Option |
|---------------------------|---|--------------------------------------|------------------------------------|
| 1 and 2 | \$4.5 M | Completed in 2012 | City Reserve |
| 3 | \$1.5 M (from the existing approved funding) \$6.0 M (new funding) | 2013 | City Reserve External Borrowing |
| 4 | \$2.44 M | 2016 | External Borrowing |
| 5 | \$2.44 M | 2017 | External Borrowing |
| 6 | \$2.44 M | 2018 | External Borrowing |
| 7 | \$2.44 M | 2019 | External Borrowing |
| 8 | \$2.44 M | 2020 | External Borrowing |
| TOTAL CAPITAL COST | \$24.2 M | | |

Financing Alternatives:

There are inherent business and financial risks with the ADEU investment model that uses advanced capital financing. These risks may in part be mitigated through collaborating with reputable developers, establishment of operating models, and setting utility rates that encompass both capital and operational components.

In the long term, the ADEU is financially self sustaining. Rather than competing with other municipal projects, the City can take advantage of the ability of this utility to self finance by borrowing from an external source, such as the Federation of Canadian Municipalities (FCM) Fund, thus not impacting City Reserves for other high priority civic projects.

Based on currently estimated development project timelines and assuming all capital is funded by borrowing, staff estimate that the peak debt load the ADEU would be approximately \$23.8M

(capital requirements by year is shown in the table immediately above, and the cumulative debt loads are shown in **Attachments 2 and 5**). Infrastructure capital financed through tax revenues can rely on predictable and steady funding, whereas income from a corporation is dependent on market conditions.

The peak debt load is a direct function of the construction schedule through to build-out. Any extension of the build-out period beyond the 10-year timeframe would lower the peak debt load as capital requirements would be spread over a greater period. The business model results show a 6.5% internal rate of return over a 30 year period² (**Attachment 6**). The City engaged KPMG to conduct a review of the ADEU financial model and have provided feedback on the model estimates and assumptions (**Attachment 7**).

The financing mechanisms available are largely determined by the governance model selected. The table below summarizes these options.

| Available Financing Mechanisms | Governance Model | | |
|--------------------------------|--------------------------|----------------------------------|------------------------------------|
| | 1. City Direct Ownership | 2. Wholly City Owned Corporation | 3. Private Ownership and Operation |
| Borrowing from City Reserves | Yes | Yes | No |
| External Borrowing | Yes | Yes | Yes |
| Partnering with Third Party | Optional | Yes | Yes |
| Government Grants | Yes | Limited* | No |
| Liability | City | Corporation | Corporation |

*Some grants are available only to government projects.

A wholly City owned corporation offers the maximum administration, operation and financial flexibility while maintaining Council oversight. The key advantage is that a corporation limits the City’s liability and holds the corporation accountable to its administrative and fiscal accountability. Depending on the governance model Council selects, staff will bring back a report detailing the financing and payback options for Council consideration.

Personnel Consideration

During the start up phase of the ADEU, there is significant demand on staff time and resources to oversee consultant work, negotiating business agreements, prepare bylaws, conduct consultation, and serve customer needs. Once the ADEU is established, the on going management of the operation becomes much more customer service oriented. In addition to managing the ADEU, this position is responsible for identifying and exploring other district energy opportunities

² The projections are based on prospective results based on assumptions about future conditions and courses of action.

within the city, granting opportunities, as well as interfacing with the contract operator, developers and the public on district energy.

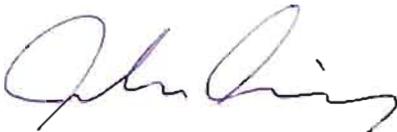
In 2011, Council approved a one-year temporary full time (TFT) position of Manager, District Energy expiring December 2012 to facilitate the development of the ADEU. As the ADEU grows, the need for a dedicated staff person to deal with technical issues and customer service also is also growing. The development of district energy utility in Richmond has matured to a point where a regular full time District Energy Manager (RFT) position is warranted. Based on the financial model projections, staff anticipate that additional revenues from future phases of ADEU would be available to further offset the cost of the City's DEU Manager. Council has also approved \$200,000 for Infrastructure Advanced Design to explore district energy for City Centre in the 2013 Capital Budget. Furthermore, other operational efficiencies have been identified that can support this position. Together, these funding sources are able to support converting the DEU Manager to a regular full time without any budgetary impact to the City.

Financial Impact

The recommended alternative establishment of a wholly owned corporation is estimated to cost \$50k. Funding for this can be provided from the General Contingency Account.

Conclusion

Staff recommend the establishment of a wholly City owned corporation named the Lulu Island Energy Company to own and operate the ADEU. Analysis indicates that this option provides the best combination of flexibility, control, risk management, financing and accountability for the ADEU.



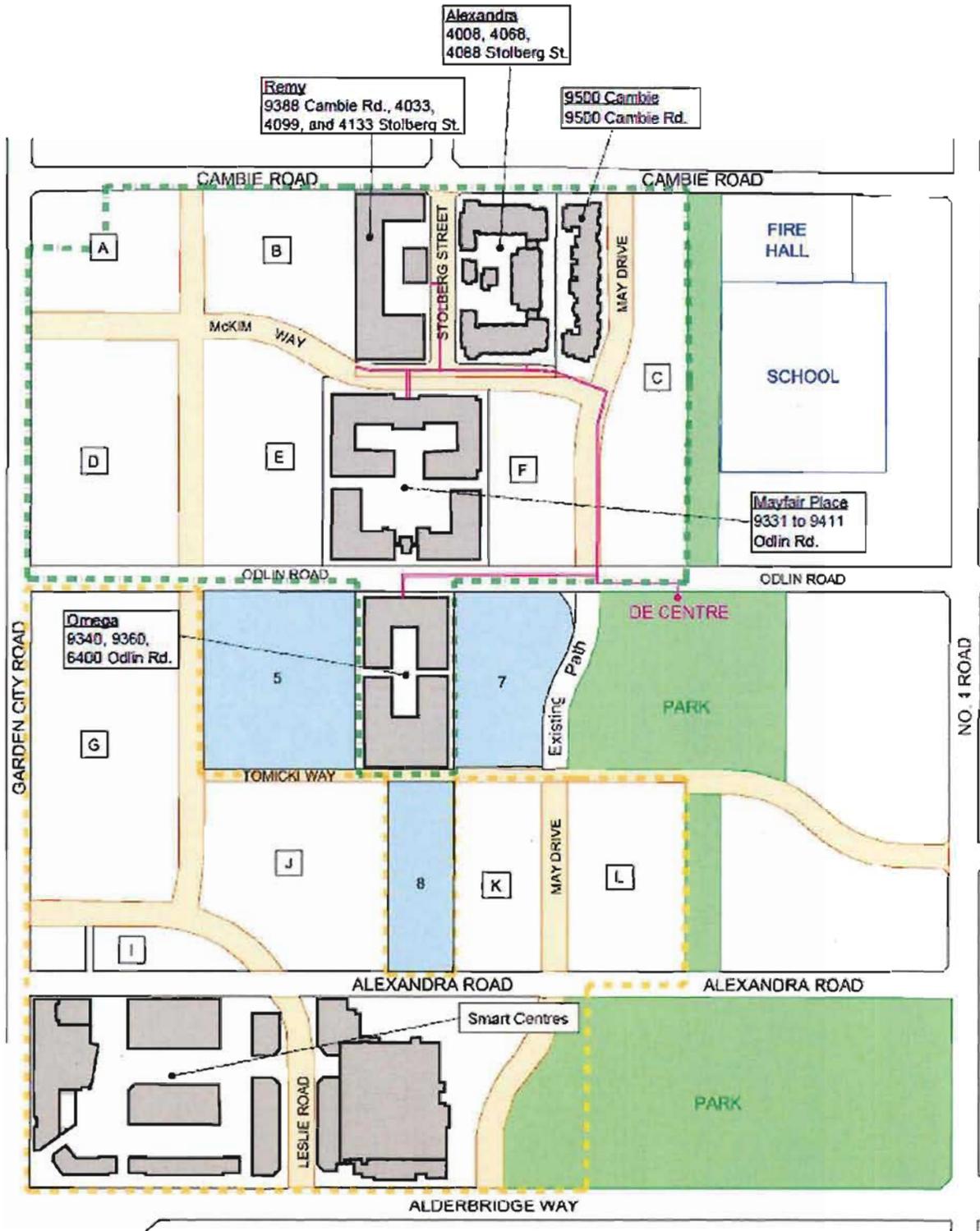
John Irving, P.Eng. MPA
Director, Engineering



Cecilia Achiam, MCIP, BCSLA
Interim Director, Sustainability and District Energy

| | | |
|--------------|---|----------------|
| Attachment 1 | ADEU Map | REDMS# 3649164 |
| Attachment 2 | Estimated Timeline for Development and Funding Requirements | REDMS# 3649153 |
| Attachment 3 | Ownership Model Evaluation Matrix | REDMS# 3649159 |
| Attachment 4 | Local District Energy Utilities Comparison | REDMS# 3649156 |
| Attachment 5 | Cumulative Debt Load and Projected Net Income | REDMS# 3649154 |
| Attachment 6 | ADEU Financial Analysis Model (to build-out) | REDMS# 3649160 |
| Attachment 7 | KPMG Feedback Summary | REDMS# 3649162 |

ADEU Map



Estimated Timeline for Development and Funding Requirements

| Calendar Year | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---------------|---------------|-----------------|-------------|-------------|---------------|---------------|---------------|---------------|----------------|
| Project Year | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Estimated Buildings Serviced (millions sqft) | | | | | | | | | | |
| Oris - Remy | | | 0.15 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 |
| Oris - Alexandra Gate | | | | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 |
| Oris Total | | | 0.15 | 0.38 | 0.38 | 0.38 | 0.38 | 0.38 | 0.38 | 0.38 |
| In-Stream - Polygon | | 0.07 | 0.35 | 0.36 | 0.36 | 0.36 | 0.36 | 0.36 | 0.36 | 0.36 |
| In-Stream - Omega | | | | 0.11 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 |
| In-Stream - Smart Centres | | | | 0.18 | 0.26 | 0.26 | 0.26 | 0.26 | 0.26 | 0.26 |
| In-Stream - Others | | | | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 |
| Future Development | | | | | | 0.37 | 0.74 | 1.11 | 1.48 | 1.85 |
| Total Buildings Serviced (millions sqft) | | 0.07 | 0.50 | 1.14 | 1.33 | 1.70 | 2.07 | 2.44 | 2.81 | 3.18 |
| Estimated Capital Requirement (\$Millions)* | | | | | | | | | | |
| Phase 1 - internal debt | \$2.30 | \$0.80 | | | | | | | | |
| Phase 2 - internal debt | | \$0.90 | \$0.50 | | | | | | | |
| Phase 3 - internal debt | | | \$1.50 | | | | | | | |
| Phase 3 - other funding | | | \$6.04 | | | | | | | |
| Phase 4+ - other funding | | | | | | \$2.44 | \$2.44 | \$2.44 | \$2.44 | \$2.44 |
| Total Capital Requirement (\$Millions)* | \$2.30 | \$1.70 | \$8.04** | | | \$2.44 | \$2.44 | \$2.44 | \$2.44 | \$2.44 |
| Total Cumulative Capital Requirement (\$Millions)* | | | | | | | | | | \$24.27 |

*All amounts in 2011 dollars.

**Only \$6.04M needed from the external borrowing as the \$2.0M is already allocated from the \$6.0M internal borrowing. This work will most likely spread over the period of 2-3 years.

Ownership Model Evaluation Matrix

| Criteria | 1. City Direct Ownership and Operation (Current model for the first development phase) | 2. Wholly City Owned Corporation (Recommended) | 3. Private Ownership and Operation |
|---|---|--|---|
| Financial Risk and Operating Liability | <p>Financial risk and operating liability lies solely with the City.</p> <p>Little ability to limit liability should a dispute arise.</p> | <p>Lower liability and risk than Option 1. Provided risk is properly controlled, the City is protected from financial risk and operating liability to the extent permitted by the British Columbia <i>Business Corporations Act</i>.</p> <p>However, vicarious or even direct liability may arise in relation to direct control by the City of the services performed by the corporation. It may be important for the corporation's management to have the ability to act without perceived undue interference from the City. Control mechanisms can be implemented in the constating documents of the corporation.</p> <p>Operating/Partnership Agreement with private operator can be used to contractually limit City's risk for such items as: equipment repair and replacement costs; employee wages & benefits; health & safety insurance costs; property loss or personal injury.</p> | <p>Financial and operating risks lie entirely with private operator.</p> <p>In this situation all the risks and benefits of total ownership lie with the private entity. Accordingly the City's concerns are more likely to be with rate control issues.</p> <p>The City has no control on user rates and choice of technology in the long term. However, residents will still hold the City accountable.</p> |
| Control | Direct local government control | Direct or indirect local government control through structure and governance mechanisms, and control of Board of Directors. | Least direct local government control of the four models |

| Criteria | 1. City Direct Ownership and Operation (Current model for the first development phase) | 2. Wholly City Owned Corporation (Recommended) | 3. Private Ownership and Operation |
|--------------------------------|---|--|---|
| Governance Issues | <p>Council approval of utility rates, policies, practices similar to water and sewer utilities.</p> <p>The City has full control over the expansion of the utility and technology decisions.</p> <p>A familiar governance model. DEU will be administered as part of an existing department or a new department within the existing corporate structure.</p> <p>The City is subject to Community Charter/Local Government Act (e.g. obtaining elector approval for certain decisions, public hearing, etc.)</p> | <p>Provincial approval required to create the corporation. Province will also establish some operational conditions</p> <p>Council approval of utility rates, policies, practices similar to water and sewer utilities. Reporting to Council on regular basis as directed by Council.</p> <p>Council would appoint a Board to administer daily operations and make business decisions within established parameters. Conflicts of interest need to be considered when selecting board members.</p> <p>More complex governance model than City Direct Ownership/ Operation Separate incorporation and operating agreements (similar to Richmond Olympic Oval) will be required.</p> <p>The Subsidiary would not be subject to Community Charter/Local Government Act (e.g. obtaining elector approval for certain decisions, public hearing, etc.) unless specified in the operating agreement.</p> | <p>BC Utilities Commission (BCUC) would regulate utility including rates. Council would have little ability to influence business decisions other than through access agreement.</p> <p>Any expansion will require approval by BCUC.</p> <p>Least complex governance model for the City since the City is not involved in the ownership, operation or utility rate determination.</p> |
| Operational Obligations | <p>The City must build and maintain in-house expertise (although some functions can be contracted).</p> | <p>As the sole shareholder, Council has full control of board appointment and can ensure operational standards using operation agreement.</p> <p>There may be less flexibility and synergies with existing City operations.</p> | |

| Criteria | 1. City Direct Ownership and Operation <i>(Current model for the first development phase)</i> | 2. Wholly City Owned Corporation (Recommended) | 3. Private Ownership and Operation |
|---------------------------------------|--|--|--|
| Utility Rates | <p>City sets rates.</p> <p>Maximum flexibility for setting rate structure and rate adjustment to maintain competitiveness.</p> <p>Council sets utility rates (Not BC Utilities Commission)</p> | <p>Rates would be set by City according to City's policy.</p> <p>Council sets utility rates (Not BC Utilities Commission)</p> | <p>British Columbia Utility Commission (BCUC) sets the rates. The City has no input.</p> |
| Long Term Financial Commitment | <p>Options 1 and 2 have similar financial costs to the City.</p> <p>Revenue/loss accrue to the City</p> | <p>Options 1 and 2 have similar financial costs to the City.</p> <p>There may be some additional costs for Board, administration, financial reporting, etc.</p> <p>The City can determine the extent of revenue/loss transfer from the corporation.</p> <p>Provided services are within the City's municipal boundaries, the corporation will have the same income tax and sales tax advantages as the City.</p> <p>As sole shareholder, the City can sell the utility in the future as desired.</p> | <p>None.</p> |

| Criteria | 1. City Direct Ownership and Operation <i>(Current model for the first development phase)</i> | 2. Wholly City Owned Corporation (Recommended) | 3. Private Ownership and Operation |
|---------------------------|---|--|------------------------------------|
| Capital Investment | <p>The City is responsible for the full burden of capital. The City must borrow from reserves which may delay or elimination of other capital projects.</p> <p>Alternatively, the City can take on debt to finance capital requirements (This may require referendum.) This may create lower borrowing rates available to local governments may result in lower capital cost.</p> | <p>The corporation will be responsible for the capital. There is no impact on the City's capital projects.</p> <p>The City will need to consider how much of a capital contribution it wishes to make as the sole shareholder.</p> | None |

| Criteria | 1. City Direct Ownership and Operation <i>(Current model for the first development phase)</i> | 2. Wholly City Owned Corporation (Recommended) | 3. Private Ownership and Operation |
|--|--|---|--|
| Revenue | City has the full share of the revenue. | City has complete control of the distribution of revenue between the City and the corporation | City does not share in the revenue. |
| Green House Gas Reduction¹ | <p>Direct Council control on how to phase alternative green technologies to maximize GHG reduction.</p> <p>City has control on subscription to DEU and utility infrastructure extensions by Bylaw. This provides certainty on how much GHG reduction can be realized.</p> <p>City owns green rights.</p> | <p>Indirect Council control on how to phase alternative green technologies to maximize GHG reduction. (Decision will be made by Board of Directors who may be appointed by the City)</p> <p>City has control on subscription to DEU and utility infrastructure extensions by Bylaw.</p> <p>City may preserve ownership of green rights into the ownership model.</p> <p>Expansion of DEU dependent on the financial ability of the corporation. The City may be required to act as guarantor or provide interim financing to the corporation.</p> | <p>No City control over GHG reduction targets, DEU infrastructure extension, and utility rates/rate structures.</p> <p>City does not own green rights.</p> |
| Grant or Alternative Funding Sources | <p>The City can apply for some grants available only to governmental agencies</p> <p>The City generally has the option to borrow at a more favourable rates than that available to a corporation.</p> | <p>The City may be able to apply for some grants, but the opportunities may be more limited depending on the granting agencies' criteria.</p> <p>Corporation will have access to a broader range of financiers.</p> | None |

¹ Council has committed to meeting the Provincial greenhouse gas reduction targets to reduce GHG by 33% by 2020, from 2007 levels and an 80% reduction by 2050. Council has also voluntarily committed to become carbon neutral by 2012 by signing the British Columbia Action Charter.

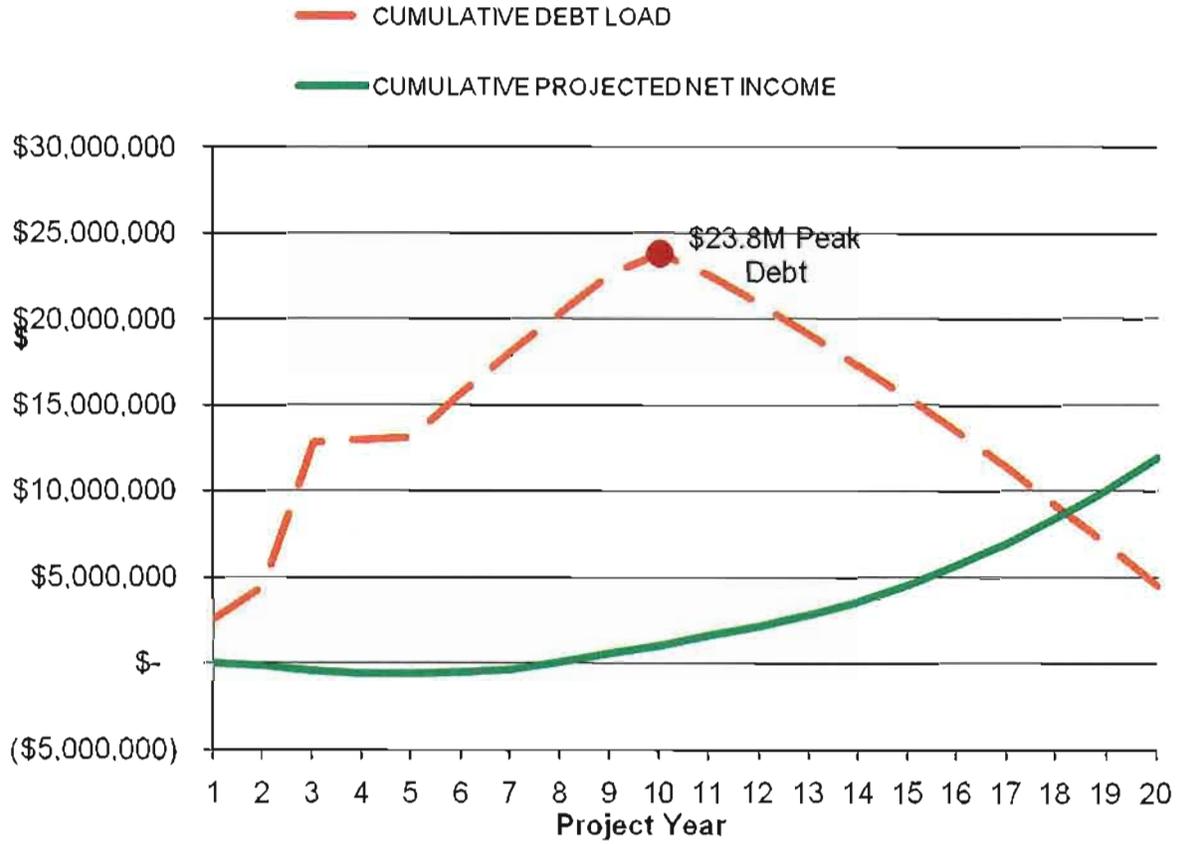
| Criteria | 1. City Direct Ownership and Operation (Current model for the first development phase) | 2. Wholly City Owned Corporation (Recommended) | 3. Private Ownership and Operation |
|--------------------------------|--|--|---|
| Implementation | The City has full control of implementation schedule and associated costs. | The City has full control of implementation schedule and associated costs. The cost is slightly higher than Option 1 given the associated costs for incorporation and setting up the corporation and the establishment of a Board of Directors. | The City has no role in the implementation. The City is limited to regulatory and licensing roles. |
| Operating Costs | The operating costs are the sole responsibility of the City. The operating cost may or may not be lower than that of a subsidiary depending on whether new staff and specialized staff and systems need to be put in place. | The operating costs are the responsibility of the subsidiary corporation with oversight by the City. | The operating costs are the sole responsibility of the private owner. The City has no obligation. |
| Customer Service | The City has most control and the public has most certainty on utility rates and billings. The service level would be similar to other City utility for billing and servicing | The City has same control over rates and billings as Option 1. The public has similar certainty on utility rates and billings. | The City has no control over rates, billings or level of services. |
| Ability to Sell Utility | The City could sell the assets and operation of the utility to a private entity in future, if the City so chose. Elector approval may be required. | Lower liability exposure than Option 1. Liability is limited by the <i>BC Business Corporations Act</i> . Greater ease of exit. Corporation carries its own debt and assets making it easier to sell, without application of approvals and regulations applicable to City under the Community Charter and Local Government Act. | Not applicable since DEU is already owned and operated by a third party. |

Local District Energy Utilities Comparison

| City | Vancouver | North Vancouver | Victoria | Surrey |
|--|---|---|--------------------------------------|--|
| Service Area | South East False Creek | Lower Lonsdale | Dockside Green | Surrey Civic Centre* |
| Status | Operational | Operational | Operational | Under Development |
| Projected Build Out Serviced Floor Area | 6,266,000 sf | 600,000 sf | 1,300,000 sf | 920,000 sf |
| Capital Expenditures | \$43.2M | \$8M | \$20M | \$4.8M |
| Governance Model | Municipally owned and operated. Operational and financial responsibilities shared by the GM of Engineering Services and Director of Finance | Municipal owned but operated by a private company | Privately owned and operated | To be municipally owned and operated within the Engineering Department as a business unit |
| Management of Utility | Fully managed by staff as directed by Council | Utility managed by private sector with municipal oversight | Fully managed by private sector | To be fully managed by staff as directed by Council |
| Regulatory Framework | Self regulated-City controls and regulates | City sets energy rates with municipal oversight of operations | Regulated by BC Utilities Commission | To be self regulated-City controls and regulates with input from a supporting advisory committee |
| Funding Implications | Eligible for grants and low-interest loans from senior levels of government | Eligible for grants and low-interest loans from senior levels of government | Private sector is fully responsible | To be eligible for grants and low-interest loans from senior levels of government |

| City | Vancouver | North Vancouver | Victoria | Surrey |
|---|--|--|--|---|
| Service Area | South East False Creek | Lower Lonsdale | Dockside Green | Surrey Civic Centre* |
| Financial Consideration | <p>Unlike the private sector, profit generation is not the key objective; therefore, a lower Return on Investment (ROI) is required</p> <p>Lower cost of capital. The City has the option to borrow from reserves or access grants and low interest government loans</p> | <p>Capital risk lies with the City. Operating risk may be transferred to private operator depending on the contract stipulation.</p> | <p>A privately owned company is subject to income tax and risk premiums. It will also have a higher cost of financing resulting in a higher required ROI</p> | <p>Unlike the private section, profit generation is not the key objective; therefore, a lower Return on Investment (ROI) is required</p> <p>Lower cost of capital. The City has the option to borrow from reserves or access grants and low interest government loans</p> |
| Policy Used to Establish Market Demand | <p>Connection to utility is mandated by by-law</p> | <p>Connection to utility is mandated by by-law</p> | <p>Connection mandated in the <i>Master Development Agreement</i> (rezoning approval)</p> <p>Property tax exemption granted through "Green Power Facility Bylaw"</p> | <p>Not yet determined- currently under review</p> |
| Partnership | <p>No external partner</p> | <p>City of North Vancouver, Fortis/Corix</p> | <p>City of Victoria, Windmill, VanCity, Corix & Fortis</p> | <p>No external partner</p> |

Cumulative Debt Load and Projected Net Income



ADEU Financial Analysis Model (to build-out)

(Preliminary draft based on current assumptions. Financial Model is subject to change as these facts and assumptions change.)

(All dollar figures are expressed in thousands of dollars)

| | Year 1 2011 | Year 2 2012 | Year 3 2013 | Year 4 2014 | Year 5 2015 | Year 6 2016 | Year 7 2017 | Year 8 2018 | Year 9 2019 | Year 10 2020 | Year 15 2025 | Year 20 2030 | Year 30 2040 |
|--|---|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------|-----------------|-----------------|-----------------|
| TOTAL REVENUE | \$ - | \$ 66 | \$ 497 | \$ 1,180 | \$ 1,425 | \$ 1,896 | \$ 2,401 | \$ 2,945 | \$ 3,527 | \$ 4,152 | \$ 5,052 | \$ 6,146 | \$ 9,098 |
| TOTAL EXPENSES | \$ - | \$ 66 | \$ 305 | \$ 662 | \$ 752 | \$ 923 | \$ 1,104 | \$ 1,295 | \$ 1,497 | \$ 1,712 | \$ 2,074 | \$ 2,514 | \$ 3,750 |
| DEBT INTEREST EXPENSE | \$ - | \$ - | \$ 151 | \$ 302 | \$ 302 | \$ 455 | \$ 608 | \$ 608 | \$ 761 | \$ 1,224 | \$ 1,224 | \$ 1,000 | \$ - |
| PROJECTED OPERATION INCOME (LOSS) BEFORE AMORTIZATION | \$ - | (\$ 0) | \$ 41 | \$ 216 | \$ 371 | \$ 517 | \$ 690 | \$ 1,042 | \$ 1,270 | \$ 1,217 | \$ 1,754 | \$ 2,632 | \$ 5,348 |
| Principal Repayment | \$ - | \$ - | \$ 0 | \$ 203 | \$ 203 | \$ 203 | \$ 508 | \$ 508 | \$ 508 | \$ 1,251 | \$ 1,624 | \$ 1,848 | \$ - |
| PROJECTED CASHFLOW | \$ - | (\$ 0) | \$ 41 | \$ 13 | \$ 168 | \$ 314 | \$ 181 | \$ 534 | \$ 761 | (\$ 34) | \$ 130 | \$ 785 | \$ 5,348 |
| Cumulative Project Cashflow | \$ - | (\$ 0) | \$ 41 | \$ 54 | \$ 221 | \$ 536 | \$ 717 | \$ 1,251 | \$ 2,012 | \$ 1,978 | \$ 1,886 | \$ 4,448 | \$ 44,814 |
| Internal Rate of Return (IRR) over 30 years: | | | | | | | | | | | | | |
| CAPITAL INVESTMENT* | (\$ 2,300) | (\$ 1,703) | (\$ 8,042) | \$ - | \$ - | (\$ 2,445) | (\$ 2,445) | (\$ 2,445) | (\$ 2,445) | (\$ 2,445) | \$ - | \$ - | \$ 5,511 |
| Annual Cash Inflow from Operation | \$ - | (\$ 0) | \$ 41 | \$ 216 | \$ 371 | \$ 517 | \$ 690 | \$ 1,042 | \$ 1,270 | \$ 1,217 | \$ 1,754 | \$ 2,632 | \$ 5,348 |
| Net Annual Cashflow of Investment | (\$ 2,300) | (\$ 1,703) | (\$ 8,001) | \$ 216 | \$ 371 | (\$ 1,927) | (\$ 1,755) | (\$ 1,403) | (\$ 1,175) | (\$ 1,228) | \$ 1,754 | \$ 2,632 | \$ 10,860 |
| CUMULATIVE DEBT LOAD | \$ 2,500 | \$ 4,413 | \$ 12,776 | \$ 12,909 | \$ 13,052 | \$ 15,648 | \$ 17,948 | \$ 20,247 | \$ 22,544 | \$ 23,787 | \$ 15,358 | \$ 4,452 | \$ 9,581 |
| CUMULATIVE PROJECTED NET INCOME | (\$ 50) | (\$ 165) | (\$ 486) | (\$ 632) | (\$ 623) | (\$ 552) | (\$ 396) | \$ 28 | \$ 594 | \$ 1,021 | \$ 4,524 | \$ 11,908 | |
| IRR: | 6.54% | | | | | | | | | | | | |
| NPV: | \$ 1,352 | | | | | | | | | | | | |
| Payback Period: | 21 years (time to recover original investment of \$24.267M from operation income) | | | | | | | | | | | | |

The projections are based on prospective results based on assumptions about future conditions and courses of action.

The current model assumes that an external borrowing of \$18.2 million is obtained from MFA for 20 years at an interest rate of 5%.

The estimated total interest cost over the life of the loan is approximately \$15.2 million.

*Includes an estimation of the remaining value of capital equipment.

KPMG Feedback Summary

The business model results show a 6.5% internal rate of return over a thirty year period. The City engaged KPMG to conduct a review of the ADEU financial model (summary in **Attachment 5**) and they have provided changes and feedback with respect to the costs and risks of the current model, including the following:

| KPMG Feedback | Staff Response |
|--|--|
| Lack of incentives for each building to minimize peak capacity requirements and energy usage over time, | This comment was based on the old flat rate charge. As of May 14, 2012, a new rate structure was adopted by Council that encourages minimizing peak capacity and energy usage. The new rate consists of: <ul style="list-style-type: none"> - charge tied to building floor area, - charge tied to building peak heating load, and - charge tied to energy consumption. |
| Inequity perception as a flat rate structure departs from standard practice of having separate capacity and energy charges based on contract capacity and metered usage, | As above |
| Volatility of costs for buildings with high usage if there is a change to metered rates | Any recommended changes to the rate structure would be designed to avoid volatility. |
| Subjectivity in pricing decisions versus using automatic indexation, | Indexation to conventional commodity costs will always be used as one of several guides in developing recommended rate changes. |
| Understatement of overhead and administration costs, | These costs are split between the administrative and overhead line and the plant O&M line. |
| Overestimation of boilers and chillers assets lifespan. | This is currently offset by not including the remaining life asset value of the remaining components that will last well beyond 30 years. |

Further refinement and development of the financial model will be ongoing as multiple technical options are explored for the 3rd Phase expansion.