Supports Item No. 3
P&E Committee Agenda
July 14, 2011

CITY OF VANCOUVER

POLICY REPORT
ENVIRONMENT

Report Date:	July 4, 2011
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TO: Standing Committee on Planning and Environment

FROM: Director of Sustainability

SUBJECT: BC Sustainable Energy Association Vancouver Retrofit Energy Efficiency Financing Pilot Program for Strata-titled Condominiums (BCSEA Condo Retrofit Pilot)

RECOMMENDATIONS:

A. THAT the City proceed with an Energy Efficiency Retrofit Pilot Program for up to 15 Strata-titled condominium buildings as a proof of concept for a future province-wide program.

B. THAT the City provide a grant to the BC Sustainable Energy Association ("BCSEA") for $25,000 from the Sustainability Group 2011 operating budget to administrate and lead the pilot program in cooperation with other project partners.

C. THAT all legal agreements with Vancouver City Savings Credit Union ("Vancity"), the Vancity Community Foundation, BCSEA, and any other required parties be on such terms and conditions as are satisfactory to the City Manager, Director of Finance, and Director of Legal Services and generally on such terms outlined in this report.

D. THAT all such legal agreements, upon approval pursuant to Recommendation C, be executed and delivered by the Director of Legal Services.

E. THAT the City set aside up to $400,000 in an interest-bearing loan loss reserve account (to be matched by a contribution of up to $600,000 from the Vancity Community Foundation) as interim security for up to $2 million in loans to eligible program participants under the pilot program conditions as outlined in the report.

F. THAT Council instruct the Director of Legal Services to request an amendment to the Strata Property Act from the Province that enables Strata corporations to secure a retrofit loan by way of a simple filing against the common property in the Land Title Office.

G. THAT no legal rights or obligations be created by the adoption of these Recommendations unless and until such legal agreements are executed and delivered by the Director of Legal Services.

H. THAT Staff report back with the findings of the pilot program and next steps.

CITY MANAGER'S COMMENTS

The heating and cooling of buildings is responsible for more than half of all the greenhouse gas (GHG) emissions in the City of Vancouver. Multi-unit residential buildings alone constitute approximately 11% of Vancouver's overall community GHG emissions. Piloting retrofit financing programs for condo buildings with partners such as BC Hydro, Fortis BC, the Province of BC, and BCSEA will help further our collective understanding of what GHG reductions are possible in this sector. In addition to furthering the City's environmental protection objectives, the use of energy savings to finance the retrofit of existing multi-unit residential buildings in Vancouver represents a potential new source of investment that can be used to create new "green jobs". The City Manager recommends approval of Recommendations A through H.

COUNCIL POLICY

Eight affirmative votes are required for the approval of grants.

In March 2007, Council passed a motion directing staff to begin planning for significant, long term greenhouse gas (GHG) reductions with the long range goal of becoming a carbon-neutral city.

In July 2007, Council adopted targets to reduce community GHG emissions to 33% below 2007 levels by 2020 and 80% below current levels by 2050. In addition, Council adopted the target of having all new construction in Vancouver be GHG-neutral by 2030.

In May 2009, Council received the Greenest City Action Team's (GCAT) Quick Starts Report, which recommended early actions the City could take to help Vancouver become the greenest city in the world by 2020. Council approved a motion directing staff to report back with an implementation plan for the recommended actions.

In October 2009, Council received the GCAT 2020 report and directed the City Manager to work with staff and report back with recommendations on practical implementation steps to meet the targets set out in the report.

In January 2011, Council received the draft Greenest City Action Plan. The plan presented 22 measurable targets including "double the number of green jobs in the city by 2020 over 2010 levels" and "reducing energy use and GHG's by 20% in existing buildings over 2010 levels by 2020".

In May 2011, Council approved a retrofit financing program for one and two family dwellings in partnership with Natural Resources Canada, BC Hydro, and Fortis BC with significant in-kind and financial support from Vancouver City Savings Credit Union (Vancity) and the Vancity Community Foundation.

SUMMARY

The strata titled multi-unit residential sector (condos) are currently some of the most energy intensive buildings in Vancouver and are the least served by existing energy retrofit programs. Energy retrofits have the potential to lower monthly strata fees by lowering common area energy costs, and shifting some of the costs to a user pay model where appropriate, as well as mitigating the potential impacts of future energy price increases. There are however, two significant barriers to retrofits in this sector: Strata corporations do not have the expertise to manage complex retrofit projects and financial institutions have limited experience providing loans to strata corporations where property can not be used as security.

Staff recommend piloting a program that will provide low interest, long-term financing for eligible energy efficiency retrofit projects for up to 15 residential strata-titled condominiums. Loans would be made available to participating strata corporations in good financial health and be repaid through energy savings. The pilot program entails a partnership with multiple partners in different roles. The BC Sustainable Energy Association (BCSEA) is the primary partner in the delivery of the program and will take the lead in coordinating the retrofit work. Vancity is the financial partner and will provide a financing pool of up to $2 million to eligible strata corporations who will each be able to borrow up to $200,000. The Vancity Community Foundation (the Foundation) is the philanthropic partner who will set aside up to $600,000, in a loan loss reserve fund contingent on a matching contribution of $400,000 from the City of Vancouver. Vancity will hold the loan loss reserve in an interest-bearing account as a means of securing the strata's financing. Fortis BC and BC Hydro are general program partners that are helping with program design and verification, and are also providing some incentives to the stratas for the energy upgrades. The goal of this pilot is to develop a proof of concept for a long-term sustainable financing solution that is offered by multiple financial institutions in addition to Vancity and does not require security from the City or philanthropic capital such as that being provided by the Foundation. Staff also recommend advocating for changes to the Strata Title Act to enable strata corporations to access financing for energy efficiency retrofit projects without City support, beyond the term of the pilot.

PURPOSE

The purpose of this report is to seek Council approval of the retrofit energy efficiency financing pilot program for up to 15 strata-titled condominiums, as proposed. This will require providing a $25,000 grant to BCSEA to administer this pilot as well as setting aside up to $400,000 of City funds in an interest bearing account with Vancity for the term of the project (up to 10 years or upon payout of the last loan), or until the proposed amendment to the Strata Property Act is achieved, whichever is sooner. The $400,000 City funds will be used as loan security for the pilot program and could be accessed by Vancity in the event of defaults and under specific conditions as detailed on pg.7 – "What are the Risks to the City". The second purpose is to seek Council approval to request an amendment to the Strata

Property Act from the Province to enable strata corporations to secure a retrofit loan by way of a simple filing against the common property in the Land Title Office.

The desired outcomes of the pilot are the following:

- To build capacity in the strata titled multi-unit residential sector for energy retrofits;
- Demonstrate to financial institutions that energy retrofits for condos are a sound investment and can generate ongoing savings to pay down initial financing;
- Collect the required data necessary to build a sustainable condo retrofit program with partners that does not require ongoing support from the City of Vancouver; and
- Build support for amendments to the Strata Property Act to enable condo strata corporations to secure energy retrofit loans against their common property in the Land Title Office.

BACKGROUND

The development of this pilot is based on a need and opportunity identified from the compilation of research and actual energy use data, from two local research efforts.

The first study was a comprehensive analysis performed by RDH Engineering and supported by BC Hydro, FortisBC, Canadian Mortgage and Housing Corporation (CMHC), the Homeowner Protection Office (HPO) and the City of Vancouver that examined the energy use and building characteristics of 39 high-rise condos. The study identified significant variance in the energy intensity of buildings of all ages but also identified significant common opportunities for energy and GHG savings. Some of these opportunities included adding controls to uncontrolled corridor ventilation, and uncontrolled natural gas fireplace pilot lights, and adding meters to un-metered water heating and natural gas fireplaces. Other common upgrades included replacement of inefficient lighting and mechanical equipment.

The second report is a 2010 case study performed on a six-year-old 25 floor concrete high-rise, where $225,000 of energy efficiency measures were implemented supported by an interim loan to the strata corporation from FortisBC (as a stop-gap measure to allow the test to proceed) and $45,000 in utility and Natural Resources Canada (NRCan) incentives. The retrofit resulted in a 35% reduction in natural gas use in the first year and has a projected five year payback. The majority of energy savings were derived from installing in-suite meters for fireplaces and water heating.

Both studies indicated that significant energy savings from retrofits to common areas were likely possible across a number of condo buildings. Further analysis revealed that in many cases the retrofits could pay for themselves within a ten year period if appropriate financing were made available. The challenges posed to these strata's however were that they were not well served by utility incentive programs for deep retrofits and had difficulty negotiating appropriate financing from banks. These findings prompted City staff to explore partnerships with other experts in this field who were also looking at the potential to achieve market based solutions for energy and GHG savings in this sector. These partners included BCSEA, Fortis BC, BC Hydro, and The Province of BC's Ministry of Energy and Mines. There was mutual agreement among all parties to explore the development of a retrofit energy efficiency financing pilot program for strata titled residential buildings based on the collective research referenced above. Vancity and the Foundation joined this collaboration after a request for expressions of interest was issued by the City of Vancouver.

Figure 1: Partners and Roles

Partner	Contribution
Vancity Community Foundation	Up to $600,000
Vancity	Up to $2,000,000 in financing
BCSEA	Pilot program coordination & management
FortisBC	Incentives, verification, program support
BC Hydro	Incentives, verification, program support

DISCUSSION

The Need for New Financing Tools:
Staff currently project that in order to achieve the Council adopted target of reducing GHGs in the community by 33% by 2020, approximately 205,000 tonnes of sustained annual reductions will be needed from existing buildings. Staff further estimate that, of this 205,000 tonnes, 40,000 tonnes of annual reductions could come from an effective retrofit financing program solely targeting Vancouver's residential high-rises. Without a pilot program to demonstrate the business case and without effective financial tools, it is unlikely that retrofits will occur at scale as there are currently no other comprehensive incentive or financing programs that serve strata's. GHG savings could be impacted by as much as 40,000 tonnes. A loss of this magnitude is enough to jeopardize the ability of the City to achieve the ambitious GHG reduction goals it has targeted community-wide over the next ten years.

A secondary potential benefit of a successful retrofit energy efficiency financing program is the creation of new "green jobs" and the injection of new capital into the local building market. Retrofitting 150 residential high-rises would inject an additional $25 million into the local green renovation market and could create up to 300 new "green" jobs that are high quality, multi-skilled, and directly benefit the local economy.

Despite the potential for large energy savings, the multi-family sector has historically been overlooked by utility and government incentive programs for three primary reasons:

- Strata councils, made up of volunteers, are only able to be contacted through their respective property managers and have limited interest in energy retrofits as it is not within their core mandate or expertise.
- Financial institutions do not recognise the authority of strata councils to collect from their members, and typically require property as collateral for energy retrofit loans. Stratas are left to ask their members for special assessments to pay for energy retrofits, which is rarely supported given the short-term ownership perspective of many condo owners.
- Many of the contractors and trades that promote utility programs with competitive pricing do not typically work with strata councils as the transaction costs are perceived to be much higher as a result of the stratas governance structure.

Recognising that there are important gaps to fill in order for condo energy retrofits to happen at large scale, BCSEA, a provincial non-profit, has offered a proposal to administer the recommended pilot program consisting of 15 large condo towers (minimum 100 units each) in the City of Vancouver. The goal of this pilot for BCSEA is to test possible solutions, and develop a sustainable program that overcomes the above referenced barriers and does not require ongoing support from the City of Vancouver.

BCSEA will use the $25,000 grant from the City to leverage a further $75,000 from the Foundation to cover BCSEA's staff costs of administering the pilot program. BCSEA is proposing that one project manager and one communication specialist run the program leveraging the capacity built from delivering the "Green Landlords" project. Staff from the City's Sustainability Group will be responsible for overseeing the administration of the grant, with funds being sourced form the Sustainability Group's 2011 operating budget.

This approach is consistent with what other leading cities across North America are doing to reduce GHG's and create "green jobs" through new forms of investment. Philadelphia, Chicago, and Toronto have all launched similar initiatives to assist the multi-family sector in achieving energy retro-fit financing. In all cases multi-stakeholder partnerships were required to address the significant barriers inherent to this sector.

The Recommended Pilot Program

BCSEA will lead the pilot program targeting retrofits to 15 residential high-rises. The loans will average $150,000 per building and the implementation of the proposed measures will typically result in GHG reductions of approximately 20%. All loan agreements will be between the individual strata corporations and Vancity. Vancity will assess the financial health of each strata corporation, and require an assignment of lien rights and be named as a "payee in the event of loss" on the strata's' annual insurance. Only strata corporations in good financial standing are eligible for the program.

BCSEA will work with the strata's to secure bulk pricing for the retrofits as part of the detailed design. After confirming incentives with FortisBC and BC Hydro, BCSEA will assist the strata's in obtaining fixed price implementation agreements with local contractors with suitable warranties and insurance coverage before proceeding with the retrofit. An important role of BCSEA will be to provide the scope of work to the strata contractors to ensure the measures are implemented in accordance with best practices, and are well positioned to achieve the anticipated savings.

Some of the potential energy saving measures being considered for all projects include:

- (a) Corridor "make-up-air" ventilation controls
- (b) In-suite domestic hot water metering
- (c) In-suite fireplace metering
- (d) Low flow showerheads and aerators
- (e) Solar hot water
- (f) Common-area lighting upgrades
- (g) Parkade and storage lighting upgrades
- (h) Boiler controls and piping insulation

BCSEA will also work closely with City staff and the utility companies to establish the measurement and verification process so the actual cost and savings for each measure are well documented in order to ensure transparency and support development of a future, broader program. The City is also in discussions with Pacific Carbon Trust to quantify the value of the GHG offsets that will be created by the energy savings to see if they could provide additional savings to the pilot, the project partners or a future program.

Vancity has agreed to provide a loan pool of up to $2 million for the pilot program, at a fixed interest rate of 4.0% for a 10-year term. The rate is fixed through the end of 2011 after which it may be adjusted in 2012 by a maximum of 50 basis points to 4.5%. Given that this cost of financing is significantly lower than conventional unsecured loan and that financial institutions have had limited experience with energy retrofit loans to stratas, until such time when the requested amendment to the Strata Property Act is achieved, Vancity has requested that the City and the Foundation set aside up to $400,000 and $600,000 respectively to be held in a loan loss reserve (50% of the maximum loan portfolio) as security for the duration of the pilot program. The loan loss reserve will earn a return of approximately 3.5% per annum.

Assuming 100% uptake of the $2 million financing program, the first $200,000 of loan defaults (10% of the loan portfolio) would be covered by the Foundation. The next $800,000 of loan defaults (40% of the loan portfolio) would be jointly covered by the City and the Foundation at 50/50 up to $400,000 each. Any further loan defaults would be borne by Vancity.

BCSEA as Lead Partner

BCSEA is a provincially registered non-profit whose mission is "to empower British Columbians to build a clean, renewable energy future." Officially launched in summer 2004, the BC Sustainable Energy Association is focussed on the sustainable use and production of energy in British Columbia. BCSEA has hundreds of members province wide and is led by a volunteer board of directors. Since 2004, BCSEA has demonstrated that it is capable of delivering complex and effective programs that are successful in lowering GHGs and creating renewable energy.

To date BCSEA demonstrated that they not only know the issues as they relate to the large multi family sector but have also have an excellent track record in delivering results on large complicated programs such as this. It is for these reasons that staff are recommending BCSEA be the lead organisation in delivering this pilot.

An example of similarly complex large scale BCSEA program is Solar BC. BCSEA has administered the Solar BC program on behalf of the Province of BC and the Federal Government since 2008. In this role they have been responsible for dispersing millions of dollars to hundreds of solar projects across the province. BCSEA is also currently delivering a "Green Landlords" pilot in the purpose built rental multi-family sector (apartments) in partnership with the City of Vancouver, utilities and other partners. This points to practical synergies to be found in delivering both the "Green Landlords" and the proposed condo retrofit pilot program.

What Are the Risks to the City?

The primary financial risk associated with this pilot program is, in the event of loan defaults, the potential drawdown on the City's contribution to the loan loss reserve of up to $400,000. To mitigate this risk, the legal agreement between the City and Vancity will require Vancity to exercise the same credit assessment rigor that would normally apply to commercial loans to ensure that loans are underwritten based on sound credit history. This will include, but not be limited to: reviewing each strata's audited financial statements and two years of strata council meeting minutes to ensure that they are in good financial health, requiring an assignment of lien rights, and naming Vancity annually as a loss payee on the strata council's insurance. In the event of defaults, Vancity will exercise all reasonable loan collection processes that would normally apply to commercial demand loans before accessing the loan loss reserve.

How Will We Assess the Success of the Pilot?
BCSEA will be responsible for measuring the success of the pilot in cooperation with project partners. The key metrics that will be reviewed in this project will be:

- Energy Savings
- GHG reductions
- Cost savings for the strata

BCSEA will have a professional engineer review 'pre' and 'post' retro-fit utility data to review the impact that the retrofit program has had on a building by building basis. In addition to this empirical research, follow up interviews with the strata's will take place to ensure that strengths and weaknesses in program delivery are identified. Further to this, BCSEA will also perform financial analysis in order to assess the impact the program has had on strata fees and utility bills.

The Need for an Amendment to the Strata Property Act
Staff are recommending that an amendment to the Strata Property Act be sought from the Province to enable strata corporations to access conventional financing. The intent is to grant a strata corporation, by 3/4 vote resolution, the ability to secure a retrofit energy efficiency loan with a charge on each strata unit's title by way of a simple filing against the common property in the Land Title Office. This change would substantially increase the quality of security of retrofit loans to strata corporations and negate the need for alternate forms of security like the loan loss reserve fund proposed for this pilot.

If the Province approves the amendment, the pilot program could continue and be expanded, without additional City capital. Further, the City could recover its contribution of $400,000 from the loan loss reserve as it would no longer be required.

FINANCIAL IMPLICATIONS

The City will provide a $25,000 grant to the BCSEA from the Sustainability Group operating budget to administer the pilot project, which will be used to leverage an additional $75,000 from the Foundation.

Further, the City will set aside 20% of the total loans underwritten, up to $400,000, in a loan loss reserve, earning a return of approximately 3.5% per annum. This loan loss reserve will be adjusted to reflect the actual uptake throughout the program. Vancity is required to exercise the same credit assessment rigour and loan collection processes that would normally apply to commercial demand loans before accessing the loan loss reserve.

ENVIRONMENTAL IMPLICATIONS

As detailed above, if the pilot program proves successful and a Strata Property Act amendment is achieved, strata energy efficiency retrofit financing would be a key tool to Vancouver meeting its GHG reduction targets for existing buildings, as well as its community emissions targets. A retrofit program targeting primarily mid-rise and high-rise condos could yield 40,000 tonnes annual reduction in greenhouse gases from existing buildings by 2020.

COMMUNICATIONS STRATEGY

Staff from the Sustainability Group and Corporate Communications are working closely together to develop a marketing strategy to promote this program in partnership with Vancity, Fortis BC and BC Hydro and BCSEA.

CONCLUSION

The BCSEA Condo Retrofit Pilot, targeting 15 Vancouver high-rises, is poised to demonstrate the viability of a much broader program that could be implemented province-wide. Utilities have expressed support and the intention to provide incentives following the demonstration of sufficient energy savings from the results of the pilot program. A broader program would also stimulate local economic activity and create green jobs. This pilot program allows BCSEA to move forward and test this initiative and build local capacity in the renovation industry while limiting the City's risk and financial exposure in advance of the requested Strata Property Act amendment.

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