



CITY OF VANCOUVER

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ADMINISTRATIVE REPORT

A8

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Meeting Date: June 24, 2008

TO: Vancouver City Council

FROM: General Manager of Engineering Services in consultation with the Manager of Sustainability.

SUBJECT: Promotion of LiveSmartBC and ecoENERGY Retrofit Incentive

RECOMMENDATION

THAT Staff promote the provincial LiveSmartBC program and the federal ecoENERGY Retrofit Incentive program to Vancouver homeowners in order to improve awareness of the increased incentives available and in order to assist reaching Council's 2012 and 2020 community greenhouse gas emission targets.

CITY MANAGER'S COMMENTS

The City Manager supports this recommendation.

COUNCIL POLICY

In March 2005, Council approved the Community Climate Change Action Plan to reduce GHG emissions in the community to 6% below 1990 levels by 2012.

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

In July 2007, Council adopted targets to reduce Community GHG emissions to 33% below current 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 January 2008, Council adopted the World Mayors and Local Governments Climate Protection Agreement, effectively changing Vancouver's 2050 community target of an 80% reduction in greenhouse gas emissions to be relative to 1990; a change from the target adopted in July, 2007 that references current greenhouse gas emissions as the baseline.

PURPOSE

The purpose of this report is to seek council approval to launch a city initiative to raise awareness of the provincial LiveSmartBC program and the federal ecoENERGY Retrofit Incentive program.

BACKGROUND

The federal government launched the *EnerGuide for Houses* energy performance rating system and incentives in the fall of 2003 to improve the energy performance of detached and semi-detached homes.

In 2006, the *EnerGuide for Houses* program was modified and renamed the *ecoENERGY Retrofit Incentive program*. The incentives available to any given homeowner are determined by the findings of approved EnerGuide delivery agents who are licensed and trained through Natural Resources Canada. After an initial home evaluation, homeowners have 18 months to improve the energy performance of their homes in order to qualify for incentives. Follow-up EnerGuide assessments determine a home's updated EnerGuide Score and actual incentive amount.

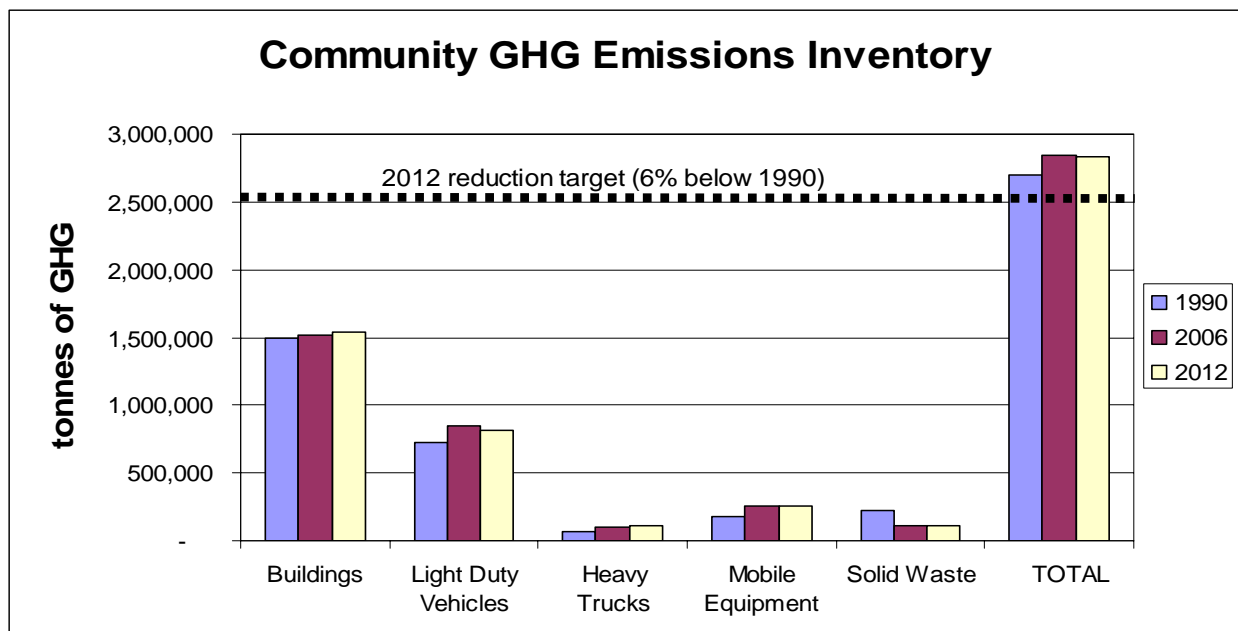
In 2007, the Province of BC announced its 2020 greenhouse gas emission target—to reduce province-wide emissions to 33% below 2007 levels. Recognizing the importance of reducing building energy use to meet those targets, the province announced "LiveSmartBC" on February 19, 2008, leveraging the current federal program but adding \$36.5 million in additional incentives to stimulate participation and reduce the cost barrier to consumers.

Appendix 1 includes a complete list of LiveSmartBC and ecoENERGY incentives.

DISCUSSION

Staff considers LiveSmartBC a significant opportunity for homeowners and wishes to raise awareness of this new program by encouraging Vancouver residents to participate. Given the federal and provincial programs do not include a significant marketing effort, the City of Vancouver would promote the program directly to Vancouver homeowners.

This initiative is in alignment with the Community Climate Change Action Plan: seventy percent of all natural gas use in existing buildings is from residential buildings. If natural gas use in all existing buildings was reduced by an average of 10%, the resulting 136,000 tonne reduction in greenhouse gas emissions would return Vancouver's total greenhouse emissions inventory to 1990 levels. Conversely, without addressing energy use in existing buildings, it is unlikely that the community will reach its 2012 or its 2020 greenhouse gas emission targets.



Source: City of Vancouver: Climate Protection Progress Report 2007

The LiveSmartBC and ecoENERGY programs can provide up to \$12,000 in incentives to homeowners for retrofits that improve the energy performance of detached and semi-detached homes. It is estimated that, with over 80,000 detached homes in the city, a significant multi-faceted awareness campaign would result in an additional 2,000 Vancouver homeowners participating in LiveSmartBC.

The proposed campaign would include following strategies:

- Internal COV department engagement: to facilitate the involvement of libraries, community centres, revenue services and development services (renovation permits) in communicating the merits of LiveSmartBC to the public.
- COV employee engagement: to encourage employees to participate and to let their friends and family know about the incentives that are available.
- Community engagement: to promote the program and advertise free public workshops on reducing energy use and maximizing investments in renovations and upgrades.
- Ethnic community engagement: to identify and mitigate barriers to participation from ethnic communities through focus groups, workshops and direct LiveSmartBC promotion at ethnic events.

Although the promotion primarily focuses on engagement in the current year, this effort is foundational for ongoing promotion of home retrofits and LiveSmartBC.

FINANCIAL IMPLICATIONS

This initiative would be funded through the Sustainability Group operating budget in addition to some leveraged funding from provincial and utility partners. It is anticipated that \$60,000 would be expended for a promotion June 2008 through early 2009.

PERSONNEL IMPLICATIONS

There are no personnel implications for the City of Vancouver; existing staff would administer the program.

ENVIRONMENTAL IMPLICATIONS

Given that, historically, over half those registering for the initial assessment will make energy efficiency improvements to their home, it is anticipated that a 2008 awareness campaign will reduce community greenhouse gas emissions from existing buildings by 1,000 - 2,000 tonnes per year for an anticipated 10-year period. The LiveSmartBC program will also be adding a transportation component to their program this fall, which would likely provide additional emissions reductions.

IMPLEMENTATION PLAN

The promotion would launch in July 2008 and continue through January 2009.

CONCLUSION

Although the upcoming changes to the Vancouver Building By-law will assist in improving the energy performance of new homes, Vancouver's existing 80,000 detached homes are a significant source of greenhouse gas emissions. To assist the community in reaching the 2012 and 2020 greenhouse gas targets, staff recommends undertaking an awareness campaign to encourage community participation in the recently-launched LiveSmartBC program. Staff would report back to Council in 2009 on the success of the 2008 promotion, the findings of the ethnic engagement strategy, and the potential for further community participation in housing retrofits through 2012.

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APPENDIX 1 - List of Incentives Available

Eligible Improvements / Retrofits for Single Family Homes		LiveSmart	ecoENERGY
In addition to energy efficiency improvements listed below, increase overall EnerGuide rating by:	40 points to achieve a rating of 60 or more and receive a LiveSmart Gold bonus of	\$700	\$0
	20 points to achieve a rating of 50 or more & receive LiveSmart Silver bonus of	\$400	\$0
SPACE HEATING		LiveSmart	ecoENERGY
Gas Furnace	ENERGY STAR 95 per cent AFUE or better with DC variable speed motor	\$770	\$500
	ENERGY STAR 92 per cent AFUE or better with DC variable speed motor	\$580	\$500
Oil Furnace	ENERGY STAR 90 per cent SEUE or better	\$520	\$300
	ENERGY STAR 85 per cent SEUE or better with DC variable speed motor	\$330	\$500
Oil or Gas Boiler	ENERGY STAR gas 90 per cent AFUE or better or oil 87 per cent SEUE or better	\$730	\$600
	ENERGY STAR 85 per cent AFUE or better	\$510	\$600
Air Source Heat Pump *subject to Federal terms and conditions	ENERGY STAR with a variable speed motor	\$1,420	\$400*
	ENERGY STAR or ductless type system*	\$1,060	\$400*
Ground Source Heat Pump	CAN/CSA C448 compliant, new ground source heat pump with all components including all reporting requirements	\$1,250	\$3,500
	CAN/CSA C448 compliant, ground source heat pump replacement including all reporting requirements	\$1,000	\$1,400
Heat Recovery Ventilator	HVI certified and a house air tightness of 4.5 ach @50Pa	\$500	\$300
Gas Fireplace Replacement	EnerChoice designated, including free-standing stoves, fireplaces or inserts	\$120/unit	\$0
Electronic Thermostats	Replace 5 electric baseboard thermostats with electronic thermostats that comply with BC Energy Efficiency Act	\$30	\$30
WATER HEATING		LiveSmart	ecoENERGY
Gas Water Heater	Condensing unit with an Energy Factor greater than 0.86	\$260	\$300
	With an Energy Factor greater than 0.82	\$220	\$250
	With an Energy Factor greater than 0.8	\$160	\$250
Electric Water Heater	With a coefficient of performance greater than 1.5	\$130	\$0
Solar Water Heater <i>* an additional incentive of \$1,000 is available from http://www.solarbc.ca</i>	CAN/CSA compliant (Solar BC)	\$125*	\$500
Drain Water Heat Recovery	With efficiency greater than 43%	\$80	\$130
ATTIC INSULATION -100% coverage of component required		LiveSmart	ecoENERGY
Increase Attic Insulation	<= R-12 to R-50	\$190	\$600 (maximum)
	<= R-12 to R-40	\$140	\$400
	<= R-25 to R-50	\$70	\$300
Increase Cathedral Insulation	<= R-25 to R-40	\$50	\$200
	<= R-35 to R-50	\$50	\$100
	<= R-12 to R-28	\$90	\$600
	0 by at least R-14	\$420	\$400

EXTERIOR WALL INSULATION		LiveSmart	ecoENERGY
Increase Exterior Wall Insulation	Add at least R-9 for 100% of building to achieve a minimum of R-12	\$400	\$1,500
	Add at least R-9 for 80%+ of building to achieve a minimum of R-12	\$230	\$1,200
	Add at least R-9 for 60%+ of building to achieve a minimum of R-12	\$160	\$900
	Add at least R-3.8 for 100% of building to achieve a minimum of R-12	\$140	\$900
	Add at least R-3.8 for 80%+ of building to achieve a minimum of R-12	\$100	\$720
BASEMENT INSULATION - requires consideration of basement moisture levels as part of the audit		LiveSmart	ecoENERGY
Increase Basement Insulation (full indoor height)	Add at least R-23 for 100% of surface area	\$400	\$1,000
	Add at least R-23 for 80% of surface area	\$300	\$800
	Add at least R-23 for 60% of surface area	\$140	\$600
	Add at least R-10 for 100% of surface area to achieve R-12	\$230	\$500
	Add at least R-10 for 80% of surface area to achieve R-12	\$150	\$400
	Add at least R-10 for 60% of surface area to achieve R-12	\$120	\$300
OTHER INSULATION -100 per cent coverage required		LiveSmart	ecoENERGY
Basement header	Increase by R-20	\$50	\$100
Crawl space wall (can qualify for only this rebate or floor above crawl space)	Increase by R-23	\$320	\$800
	Increase by R-10	\$100	\$400
Floor above crawl space	Increase by R-24	\$320	\$200
Exposed floor	Increase by R-20 (150 sq ft minimum)	\$150	\$150
WINDOWS AND DOORS		LiveSmart	ecoENERGY
Energy Star windows or doors	For your Energy Star zone	\$20 each	\$30 each
	Rated one Energy Star zone better	\$30 each	\$30 each
AIR TIGHTNESS AND DRAFT PROOFING		LiveSmart	ecoENERGY
Perform air sealing of the home to achieve	Base Target + 20%	\$250	\$300
	Base Target + 10%	\$150	\$225
	Base Target	\$100	\$150

DISTRIBUTED POWER GENERATION						
Through net metering, generate power via:	Photo-voltaic	Wind	Micro-hydro	Fuel Cell	LiveSmart	ecoENERGY
	1 kw	0.6 kw	0.4 kw	0.25 kw	\$260	\$0
	2 kw	1.2 kw	0.8 kw	0.5 kw	\$520	\$0
	3 kw	1.8 kw	1.2 kw	0.75 kw	\$780	\$0
	4 kw	2.4 kw	1.6 kw	1.0 kw	\$1,040	\$0
	5 kw	3 kw	2.0 kw	1.25 kw	\$1,300	\$0