



City of Richmond

Report to Committee

To: Public Works and Transportation Committee

Date: October 5, 2015

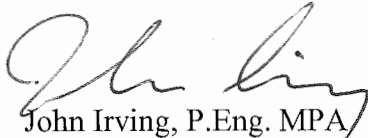
From: John Irving, P.Eng. MPA
Director, Engineering

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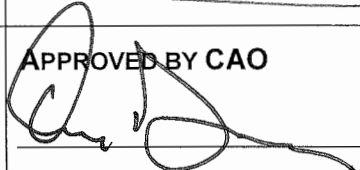
Re: Small and Medium Enterprise Greenhouse Gas Management Program

Staff Recommendation

That the development and implementation of a Greenhouse Gas Management program for small and medium enterprises be endorsed.



John Irving, P.Eng. MPA
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REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Economic Development	<input checked="" type="checkbox"/>	
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS: 	APPROVED BY CAO 

Staff Report

Origin

This report proposes that a Greenhouse Gas (GHG) Management program for small and medium enterprises (SMEs) be endorsed.

This report supports Council's 2014-2018 Term Goal #4 Leadership in Sustainability:

Continue advancement of the City's sustainability framework and initiatives to improve the short and long term livability of our City, and that maintain Richmond's position as a leader in sustainable programs, practices and innovations.

4.2. Innovative projects and initiatives to advance sustainability.

Background

Richmond's 2041 OCP includes aggressive targets to reduce the community's energy use 10 per cent by 2020, and to reduce community GHG emissions 33 per cent by 2020 and 80 per cent by 2050. The 2014 Community Energy and Emissions Plan (CEEP) identifies that business operations account for more than 33 per cent of community emissions. Accordingly, the CEEP commits Richmond to a variety of strategies to reduce business emissions, including:

Strategy 8: Encourage Energy Efficient Businesses

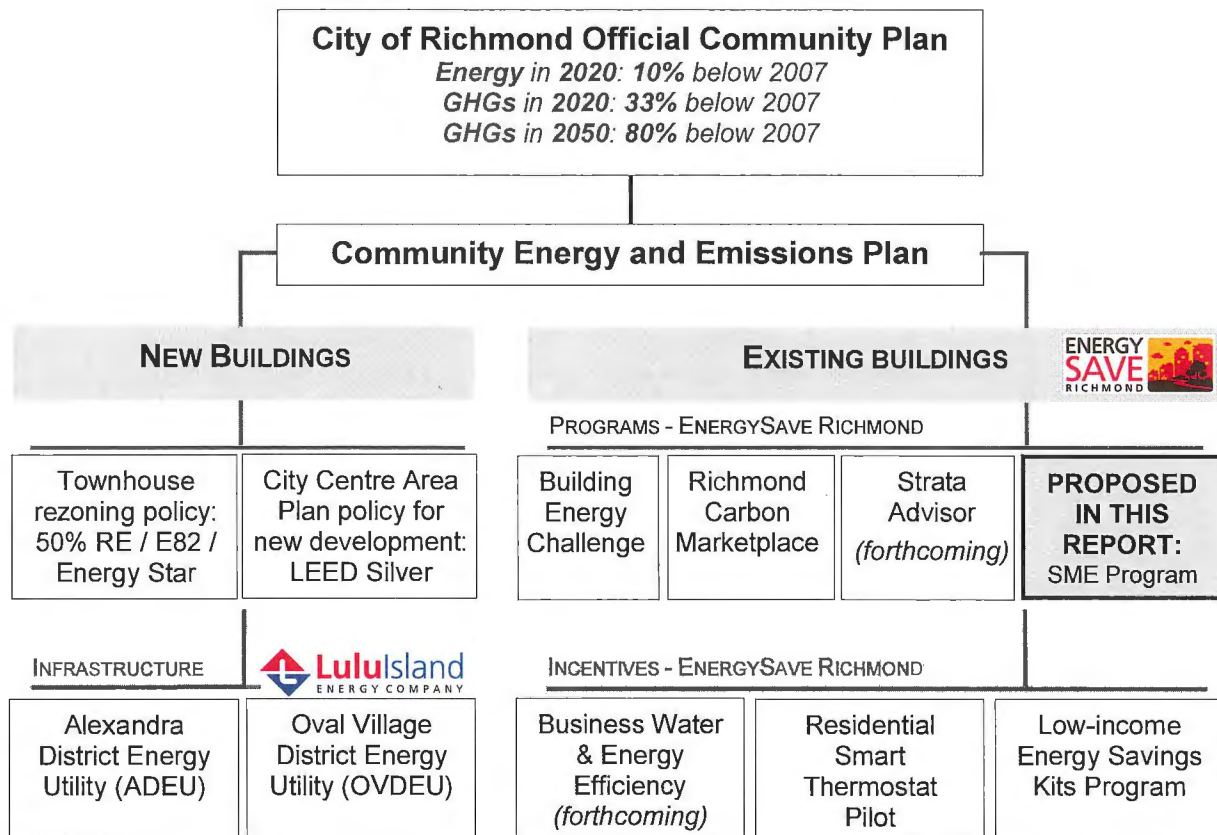
Strategy 3: Improve the Performance of the Existing Building Stock

Strategy 6: Facilitate Changes in Transportation Behaviour and Mode Choice

Additionally, as a signatory to the Climate Action Charter, the City has committed to being "carbon neutral" in its corporate operations. Carbon neutrality is achieved by reducing emissions, and balancing remaining emissions with carbon credits. The Joint Provincial-UBCM Green Communities Committee has established protocols for how local governments can generate carbon balancing credits by supporting energy projects in their communities.

Analysis

The City has established "EnergySave Richmond" as an umbrella initiative, encompassing multiple different city energy programs that support strategies in the CEEP. Active EnergySave programs can be reviewed by visiting www.energy.richmond.ca. EnergySave Richmond is also used as a vehicle to promote programs offered by BC Hydro, FortisBC, Metro Vancouver and other organizations providing solutions that can reduce energy spending and emissions for Richmond's households and businesses. The figure below illustrates elements of Richmond's climate and energy actions, including EnergySave programs.



Current Status of Existing Programs

Staff are preparing a Community Energy and Emissions Plan Update that will include updated information on the EnergySave programs and incentives noted above. The following briefly describes the current status of these initiatives:

- **Building Energy Challenge:** Launched in December 2014, the Challenge is a friendly competition between building operations managers to reduce annual energy use. Program participants managing over 5 million square feet of Richmond building space are now registered, and 3 energy management workshops have been provided for participants.
- **Richmond Carbon Marketplace (RCM):** This pilot program encourages Richmond organizations to increase their investment in improved energy efficiency and reduced GHG emissions by providing project support and financial incentives in exchange for carbon offsets. Local GHG “offsets” achieved through this program will be eligible for use by the City to reduce the City’s own corporate GHG emissions footprint.
- **Residential Smart Thermostat Pilot:** In July 2015, the City launched its pilot Smart Thermostat incentive program, and will continue to receive application to the program until November 2015.

- **Low-income Energy Savings Kits Program:** The Low-Income Energy Savings Kits Program is offered by BC Hydro and FortisBC. Staff have promoted the program at multiple community events, workshops for key stakeholder organizations, and conducted a mailing campaign to promote the program. BC Hydro notes increased participation in Richmond associated with these efforts.
- **Business Water and Energy Efficiency Program:** This program will provide water and energy saving fixtures free of charge to businesses. Staff are in the process of launching the program and securing a funding agreement with a major utility
- **Strata Energy Advisor:** This program will provide advising services to multifamily stratas considering energy improvements in Richmond. Staff are working with regional stakeholders to ensure alignment with other programs before launching the program locally.

Related Past City Programs

In 2013, the City of Richmond partnered with Climate Smart to deliver a Program for 11 Richmond-based businesses on a 1-year pilot basis. Climate Smart is a BC social enterprise with the purpose of enabling small- and medium-sized enterprises (SMEs) to reduce their GHG emissions while cutting costs and fulfilling their corporate social responsibility objectives. The average projected operating costs savings to businesses per tonne of CO₂e identified through the Climate Smart program is approximately \$400. Businesses that participate with Climate Smart for multiple years average a 9.6 per cent reduction in GHG emissions by their third year of participation.

Climate Smart's services have also been offered to regional businesses through Metro Vancouver. Metro Vancouver is currently engaging Climate Smart to design a GHG management program that may be offered across the region, anticipated for late 2016 or 2017.

In June 2015, Council approved a Business Water & Energy Efficiency program. This program focuses on directly installing water and energy efficient fixtures in businesses. The broader program proposed in this report will complement this more specific direct install program and will be engaging the same target audience.

Proposed New Program for Small and Medium Enterprises

This report proposes to implement the first year of a multi-year GHG management program targeted at Richmond SMEs. The program will assist SMEs:

- **Measure emissions.** Emissions will be measured from a range of sources, which may include facilities, vehicle fleets, waste, material consumption, employee commuting and other sources.
- **Identify emissions reduction opportunities.** Based on businesses inventory of emissions and known opportunities for their sectors, the program will identify useful emissions reductions opportunities. This will include referring businesses to utility programs, government programs, and other emissions reduction services.

- **Implement emissions reductions projects.** The program will provide capacity building and support for organizations undertaking emissions reduction projects.
- **Communicate and leverage successes.** The program will provide guidance on how organizations can promote their emissions reduction successes.

Staff shall explore opportunities to secure ownership of the credits generated through this program as part of efforts to continue to meet the City's carbon neutral commitments. It is intended that participating businesses shall commit emission reduction credits resulting from the proposed program to the City, up to the value of the annual incentive provided by the City for that firm.

The City will work with Metro Vancouver, utilities, and other stakeholders to align its programming with other services offered in the region. This will provide for a simpler, more user-friendly experience for participating SMEs.


Financial Impact

Staff estimate that up to \$40,000 will be required to fund the first year of the program, sufficient to support the participation of 15-20 Richmond-based companies over the coming year. These funds can be drawn from the City's Carbon Neutral Provisions Fund, which is earmarked for emission reduction activities. Participating businesses are expected to contribute an average of \$1500 annually by way of membership fees proportionate to each firm's size. The energy savings and GHG reduction benefits of participating in the initiative are projected to result in significant net cost savings for participating companies: Climate Smart reports that businesses have achieved an average of \$11,000 in annual energy savings¹ from participating in their program. This new initiative will also result in reduced community emissions, and the potential for additional GHG reductions suitable for sale to the City through the Richmond Carbon Marketplace initiative.

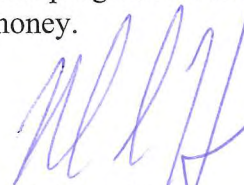
Program support for future years will be brought forward as part of the 2016 operating budget, at which time staff expects greater clarity regarding opportunities to coordinate with the proposed Metro Vancouver initiative.

Conclusion

This report proposes that the City support a GHG management program for small and medium enterprises to reduce GHG emissions and save businesses money.



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¹ Savings for individual companies range from \$0 to more than \$100,000 per year.