



City of Richmond

Report to Committee

To: Public Works and Transportation Committee **Date:** May 13, 2008
From: Robert Gonzalez, P.Eng.
General Manager, Engineering and Public Works **File:** 06-2045-01/2008-Vol 01
Re: Application for Innovation Fund Grant

Staff Recommendations

1. That the City's Application for Innovation Funding for the "Richmond City Centre Energy Sustainability Study" be endorsed; and
2. That the General Manager, Engineering and Public Works be authorized to sign grant applications and agreements as required for this Innovation Fund grant submission.

Robert Gonzalez, P.Eng.
General Manager, Engineering and Public Works
(604-276-4150)

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ROUTED TO:	CONCURRENCE		CONCURRENCE OF GENERAL MANAGER	
Finance.....	Y	<input checked="" type="checkbox"/>	N	<input type="checkbox"/>
Law.....	Y	<input checked="" type="checkbox"/>	N	<input type="checkbox"/>
Sustainability Manager	Y	<input checked="" type="checkbox"/>	N	<input type="checkbox"/>
Policy Planning	Y	<input checked="" type="checkbox"/>	N	<input type="checkbox"/>
REVIEWED BY TAG	YES	<input checked="" type="checkbox"/>	NO	<input type="checkbox"/>
		<i>dw</i>		
	REVIEWED BY CAO (Acting)		YES	NO
	<i>[Signature]</i>		<input checked="" type="checkbox"/>	<input type="checkbox"/>

Staff Report

Origin

The City of Richmond has applied for Innovation Funding in support of a City Centre Energy Sustainability Study. A condition of the funding application is that Richmond Council support the application.

The purpose of this report is to provide Council with the background for the proposed study and seek the required endorsement.

Background

About the Innovation Fund

In September 2005, the Governments of Canada, British Columbia and the UBCM entered into the Gas Tax Agreement (GTA). Under the GTA, federal Gas Tax revenue is transferred to local governments and other eligible recipients to support projects, which achieve three environmental sustainability outcomes: reduced greenhouse gas emissions, cleaner water and cleaner air.

The Innovation Fund is a delivery mechanisms for transferring the federal gas tax revenue and funding local projects. The Innovation Fund provides 100% funding for eligible costs. Initiatives which strengthen community sustainability planning are eligible for Innovation Funding.

Existing City of Richmond Energy Management

The City of Richmond has undertaken a wide range of initiatives to advance community sustainability. These include official community plan policies aimed at encouraging the development of a compact and complete community, action in support of alternative transportation, preservation and protection of Richmond's ecology and farmland, and a range of social sustainability actions such as the City's Affordable Housing Strategy.

A notable area of success has been the City's Energy Management program. For over 15 years, the City of Richmond has been improving its corporate energy use. This effort has resulted in significant results (reduced energy use, reduced greenhouse gas emissions and reduced operational costs), including the City being acknowledged as the first Power Smart Certified municipality in BC in 2001 and maintain it to present.

Some of the action taken includes: development and implementation of the City's High Performance Building policy, implementation of various energy efficiency improvement projects in City facilities, use of renewable energy sources (e.g., geothermal, solar, etc.),

participation in LEED-EB¹ pilot project (first trial in Canada), and exploring district energy utilities. The City has also been and continues to be involved in community outreach initiatives.

Proposed City of Richmond City Centre Energy Sustainability Study

While the City has undertaken a suite of initiatives to reduce corporate energy use and raise awareness of energy management in the community, the proposed plan will improve the current plan to an overarching energy management plan for addressing long-term energy sustainability challenges. The proposed plan will also focus on how the Richmond community will reduce dependency to non-renewable fossil fuels, the generation of greenhouse gas emissions, and substances contributing to climate change.

The proposed "City Centre Energy Sustainability" Study aims to develop an overarching vision and identify innovative approaches for advancing sustainable community energy management in Richmond's downtown core. Specifically, the Study will identify and explore opportunities for meeting the area's energy needs through stronger sustainable approaches, including but not limited to reducing demand, increasing energy efficiency, accelerating the shift to alternative energy sources, and development of progressive land use planning and civic infrastructure management. Key opportunities exist to identify both system-level and on-site improvements. Potential examples include:

- land use planning that considers solar exposure and optimizes accessibility to solar exposure for buildings
- identification and re-use of waste or unutilized energy
- co-location of energy symbiotic facilities (e.g., ice rinks/swimming pools)
- establishment of performance standards for energy generation (e.g., geoexchange energy generation under Parks, solar roofs on facilities, etc.)
- development of district energy systems
- energy performance goals and targets (e.g., per capita energy consumption, % renewable use to non-renewable use, energy performance requirements for civic and private sector buildings, etc.)
- demand side management techniques to reduce consumption (e.g., multi-use buildings – community centres within buildings versus stand-alone structures, etc).

This Study would provide an important building block in support of an overarching energy management plan for the entire Richmond community. The City Centre has been selected as an initial focus area because it represents the area of highest opportunity based on the following considerations:

¹ LEED-EB is a pilot project in progress by Canada Green Building Council (CaGBC) that intends to manage energy and environmental aspects related to operation and maintenance of Existing Buildings.

- it is, and is projected, to be the area of highest energy usage in the City
- it includes an array of already existing and proposed public facilities and private developments of type and density which support energy networking opportunities (e.g., facilities which offer waste energy such as from the hospital, Oval; new facilities which could generate energy on-site, distances which enable efficient energy exchange between buildings, etc.)
- anticipated re-development in this area presents significant opportunity for leveraging investment and integrating energy considerations into development proposals and civic infrastructure projects in a cost-effective manner and before opportunities are lost.

The Study would be conducted by an external consultant using funds from the Innovation Funding, overseen by an interdepartmental staff committee and coordinated through the City's Energy Management department. It is envisioned that a broad range of input will be solicited and incorporated into the development of the Study.. The Study deliverable will be a report which proposes:

- an overarching energy management vision for Richmond's City Centre
- identifies and prioritizes alternative energy management action
- provides recommendations on next steps.

Financial Implications

There is no financial impact to the City anticipated as the funding mechanism provides 100% funding².

² City staff have estimated the study to be approximately \$150,000 and are seeking funding for this entire amount.

Conclusion

The City is seeking to conduct an Energy Sustainability Study to advance energy management in Richmond's City Centre Area. This initiative is eligible for 100% funding under the Innovation Fund – a funding program established to support integrated community sustainability planning initiatives. This report seeks Council endorsement of the proposed Funding Application for the City Centre Energy Sustainability Study.



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Energy Manager

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