



## ADMINISTRATIVE REPORT

Report Date: March 31, 2017  
Contact: Michel Desrochers  
Danica Djurkovic  
Contact No.: 604.673.8229  
604.873.7710  
RTS No.: 12002  
VanRIMS No.: 08-2000-20  
Meeting Date: April 11, 2017

TO: Vancouver City Council

FROM: General Manager of Finance, Risk and Supply Chain Management in consultation with the General Manager of Real Estate and Facilities Management and the General Manager of Fire and Rescue Services

SUBJECT: Funding Application to FCM's Green Municipal Fund for the Fire Hall #17 Net Zero Project

### **RECOMMENDATION**

THAT Council approve an application to the Federation of Canadian Municipalities' Green Municipal Fund for a loan of up to \$10 million and a grant of up to \$1.5 million for "Canada's First Net Zero Fire Hall: Vancouver's Fire Hall #17".

### **REPORT SUMMARY**

The City's 2015-2018 Capital Plan funding strategy contemplates securing of senior government contributions toward a number of Council priorities, including the renewal of existing civic infrastructure and the implementation of green initiatives. This report seeks Council's approval of a funding application to be submitted to Federation of Canadian Municipalities' Green Municipal Fund (FCM GMF) for an innovative green initiative: the construction of Canada's first net zero fire hall, which will be implemented as Vancouver renews Fire Hall #17 located in Southeast Vancouver. Receiving FCM GMF funding would give national recognition to the Fire Hall #17 project.

### **COUNCIL AUTHORITY/PREVIOUS DECISIONS**

FCM funding programs require a resolution of Council as part of the application package.

## **CITY MANAGER'S/GENERAL MANAGER'S COMMENTS**

The General Managers of Finance, Risk and Supply Chain Management, Real Estate and Facilities Management, and Fire and Rescue Services recommend approval of the report.

### ***Background/Context***

[FCM's Green Municipal Fund](#) (GMF) provides low-interest loans in combination with grants to implement capital projects that demonstrate innovative solutions or approaches to municipal environmental issues and generate lessons and models for municipalities of all sizes across Canada. The program funds projects in the following areas: energy, transportation, waste and water.

The maximum funding available for most projects is a \$5 million loan in combination with a \$0.75 million grant. The maximums are increased to \$10 million loan and \$1.5 million grant for high-ranking projects. GMF will fund up to 80% of eligible project costs. FCM accepts applications twice per year - in the spring and in the fall. GMF is a two-staged process. The first phase is an initial review. If FCM screens in a project, the municipality proceeds to the second phase - a full application.

In scoping out projects to submit to FCM, City staff review projects that met the goals of the GMF program, are included in the [2015-2018 Capital Plan](#) and ready for implementation.

In 2016, the City was successful in securing GMF funding: FCM supported the Burrard Bridge Renewal and Transportation Improvement Project with a \$5 million loan and a \$0.75 million grant (the City had [applied](#) for a \$10 million loan and a \$1.5 million grant). FCM noted the Burrard Bridge project is "an excellent demonstration of taking leadership in making capital investment choices that have the best environmental outcomes. Communities across Canada can learn from this and be inspired to do the same in their communities." The project will be completed fall 2017.

### ***Strategic Analysis***

For 2017, the project that best fits the selection criteria is the renewal of Fire Hall #17, a project that will lead to the construction of Canada's first net zero fire hall. City staff submitted its initial review for the Fire Hall #17 project to FCM by the March 1<sup>st</sup> deadline. FCM responded favourably on March 3<sup>rd</sup>. The City can now proceed with a full application, which needs to be submitted by the April 18<sup>th</sup> deadline. FCM requires a Council resolution as part of the full application process. FCM will render its decision in September 2017.

Fire Hall #17 is located in southeast Vancouver, at the intersection of Knight Street and 55<sup>th</sup> Avenue. It was built in 1955 and is now 62 years old. It is currently the oldest fire hall that has not been renewed or renovated and is in poor condition. The renewal of this fire hall is included in the 2015-2018 Capital Plan.



*Fire Hall #17 in 2016*

During the planning/design phase in 2016, City staff decided to construct the replacement fire hall as a net zero energy building, which means that the total amount of energy used by the building on an annual basis is roughly equal to the amount of renewable energy created on the site. This will be achieved through two important initiatives: firstly, a substantial reduction in energy consumption (via optimizing envelope efficiency, form, orientation, glazing and shading, and use of a closed-loop geo-exchange system) and secondly, the generation of on-site renewable energy (via the installation of solar photovoltaic panels on the roof of the building).



*Schematic design for the new Fire Hall #17*

The project is fully aligned with Council's [Zero Emission Buildings Plan](#) adopted in July 2016: "to build all new City-owned projects to be certified to the Passive House standard or alternate zero emission building standard". Based on the current design, GHG emissions at Fire Hall #17 will decrease dramatically from 34 tonnes/year down to zero.

The project is 'shovel ready'. Planning/scoping work and schematic design were completed in 2016. Detailed design has started and will be completed later in 2017. Construction will begin in 2017, starting with the construction of the temporary fire hall in the summer, followed by the deconstruction of the existing fire hall in the fall. The new fire hall will be built between spring 2018 and summer 2019.

### *Implications/Related Issues/Risk (if applicable)*

#### *Financial*

The Fire Hall #17 project is estimated to cost \$17.6 million, including \$1.5 million in added investments required to achieve Passive House certification and net zero energy performance.

Staff recommends that the City apply for the maximum \$10 million loan and \$1.5 million grant. Based on an indicative rate of 3.3%, the effective borrowing rate for the combined loan and grant would be ~0.53%, well below the City's borrowing rate of 2.70% on its most recent 10-year debenture issue. As the combined loan and grant will be in place of the City's debenture program, the City's capital financing cost will be reduced.

Should the City be successful in its application to the FCM's Green Municipal Fund, staff will seek Council approval for the loan agreement with FCM and incorporate the FCM financing and grant as part of the quarterly capital budget adjustments.

### **CONCLUSION**

The City has the opportunity to secure a \$10 million loan and a \$1.5 million grant from FCM to support an innovative green project as the City renews a valuable civic facility serving Southeast Vancouver.

\* \* \* \* \*