



ADMINISTRATIVE REPORT

Report Date: February 25, 2019
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Meeting Date: March 12, 2019

TO: Vancouver City Council

FROM: General Manager of Finance, Risk and Supply Chain Management in consultation with the General Manager of Engineering Services

SUBJECT: Application to the CleanBC Communities Fund

RECOMMENDATION

THAT Council approve an application to CleanBC Communities Fund for a grant of up to \$10.7 million for the Neighbourhood Energy Utility's \$14.6 million Sewage Heat Recovery Expansion project.

REPORT SUMMARY

The City's 2019-2022 Capital Plan funding strategy contemplates securing of senior government contributions toward a number of Council priorities, including reducing energy consumption, increasing the use of renewable energy and reducing greenhouse gas emissions. This report seeks Council's approval for an application to be submitted to CleanBC Communities Fund for new Sewage Heat Recovery Capacity for the Neighbourhood Energy Utility ("NEU"). This program provides the City with the opportunity to reduce the long-term cost of service for NEU customers, helping improve the cost competitiveness of the NEU's low carbon service with traditional GHG-intensive forms of heating that rely on natural gas, and reducing the City's debt financing requirements for the utility.

COUNCIL AUTHORITY/PREVIOUS DECISIONS

- Federal and provincial funding programs typically require a Council resolution as part of the funding application package.

- In October 2012, Council adopted the Vancouver Neighbourhood Energy Strategy, to address the Greenest City 2020 Action Plan objectives through the deployment of renewable energy systems for high-density neighbourhoods.
- In November 2015, Council approved the Renewable City Strategy, which sets a target of 100% reliance on renewable energy by 2050 and for new construction to be zero emissions by 2030.
- In February 2018, Council approved a framework to guide expansion the NEU to areas of Mount Pleasant, the False Creek Flats (including the future St. Paul's Hospital) and Northeast False Creek.
- In July 2018, Council approved the 2019-2022 Capital Plan, which included the development of an additional 5 megawatts of sewage heat recovery capacity at the existing False Creek Energy Centre to enable the NEU to continue to achieve its renewable energy targets.

CITY MANAGER'S/GENERAL MANAGER'S COMMENTS

The City Manager recommends approval of the foregoing.

REPORT

Background/Context

The fundamental goal of the NEU is to minimize GHG emissions via a financially self-sustaining, commercially operated utility that delivers competitively priced thermal energy services. The NEU currently derives two-thirds of its energy supply from renewable sources, such as sewage waste heat and renewable natural gas. This results in substantial greenhouse gas emission reductions compared to traditional methods of providing heat and hot water to buildings. While non-NEU building approaches to achieve low-carbon do not require any direct City investment, the NEU provides the following unique benefits:

- it provides the City with direct long-term control to secure 100% renewable energy target for connected buildings;
- it increases the local supply of renewable energy and reduces reliance on new renewable energy from more remote locations;
- the NEU provides long-term flexibility to adapt to new technologies; and
- it provides a renewable energy retrofit opportunity for existing gas-heated buildings.

To enable the utility to continue to achieve its renewable energy supply targets, funding has been approved by Council to expand the existing sewage waste heat recovery facility by an additional 5 megawatts of energy generation capacity.

The CleanBC Communities Fund is a component of funding under the wider Investing in Canada Infrastructure Program (ICIP) Green Infrastructure – Climate Change Mitigation SubStream. The ICIP provides funding through the Integrated Bilateral Agreement between Canada and British Columbia for 4 streams: (1) Green Infrastructure; (2) Community, Culture and Recreation Infrastructure; (3) Rural and Northern Communities Infrastructure; and (4) Public

Transit Infrastructure. On December 18, 2018, Canada and British Columbia's governments announced they are investing up to \$63 million towards the initial intake of the CleanBC Communities Fund.

The application due date is March 27, 2019. This funding program requires a resolution of Council for each funding application.

Strategic Analysis

The Clean BC Communities Fund allows one application per municipality. Eligible projects must support public infrastructure, defined as tangible capital assets primarily for public use and benefit and must meet one of the following outcomes:

1. Increased capacity to manage renewable energy
2. Increased access to clean-energy transportation
3. Increased energy efficiency of buildings
4. Increase generation of clean energy

The primary outcome the New Sewage Heat Recovery Capacity for False Creek NEU meets is #4 – Increase generation of clean energy. This project strongly aligns with the objectives of the funding program, and also contributes towards outcome #1 – Increased capacity to manage renewable energy. The maximum grant available is 73.33% of eligible project costs (40% and 33.33% from the federal and provincial contributions, respectively).

Staff reviewed projects in the 2019-2022 Capital Plan that meet the program criteria and achieve at least one of the required outcomes. The New Sewage Heat Recovery Capacity for False Creek NEU was selected as the City submission as it best meets the program criteria in terms of project readiness and it has the largest estimated GHG reduction per year. A consulting study which provides supporting technical and financial analysis required for a strong application has also been completed.

The project includes preliminary and detailed design, procurement, construction, and installation of 5 megawatts of sewage heat recovery heat pumps at the existing False Creek Energy Centre, new sewage diversion infrastructure, sewage filtration equipment, and mechanical and electrical works associated with the process equipment. The project will enable the NEU to achieve its target of 70 percent of energy from renewable resources, and will position the utility well for achieving 100 percent renewable energy generation in the long term.

With this expansion project, the NEU will continue to contribute to the green economy by building capacity in the local consulting industry and supporting development of local renewable heating technologies. Innovations developed in this expansion project will also benefit other jurisdictions that are pursuing sewage heat recovery projects.

Financial Implications

Council has previously approved \$14.6 million of funding toward the Sewage Heat Recovery Expansion project including:

- \$2.5 million approved as part of the 2015-2018 NEU System Extension program; and
- \$12.1 million approved for the project as part of the 2019 Capital Budget.

The administrative consolidation of the above capital project budgets is expected to be brought forward as part of a future quarterly capital budget adjustment during 2019.

The City is seeking a grant of up to \$10.7 million to replace previously approved debenture funding for the \$14.6 million project as follows:

Investing in Canada Infrastructure Program	\$10.7 million	Partner - 73.33%
NEU Debenture, funded through NEU Utility fees	\$3.9 million	City - 26.67%
Total Project Cost	\$14.6 million	

A successful grant application would reduce the long-term cost of service for NEU customers helping improve rate competitiveness of the NEU's low carbon service with traditional GHG-intensive forms of heating that rely primarily on natural gas. Replacing planned debenture funding for the project with a grant would also preserve the City's borrowing capacity for other projects.

If the grant application is successful, the up to \$10.7 million of funding from the CleanBC Communities Fund will be used to replace, by an equivalent amount, the existing approved debenture funding for the NEU.

CONCLUSION

The Sewage Heat Recovery Capacity Expansion Project at the NEU aligns strongly with the objectives of the CleanBC Communities Fund. This program provides the City with the opportunity to reduce the long-term cost of service for NEU customers, helping improve rate competitiveness of the NEU's low carbon service with traditional GHG-intensive forms of heating that rely primarily on natural gas, and reducing the City's debt financing requirements for the utility.

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