



IN CAMERA

REPORT

Report Date: October 11, 2022
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Meeting Date: October 25, 2022

TO: Vancouver City Council
FROM: General Manager, Finance, Risk and Supply Chain Management
SUBJECT: False Creek Energy Centre Low Carbon Expansion Project Capital Budget Adjustment

IN CAMERA RATIONALE

This report is recommended for consideration by Council on the In Camera agenda as it relates to Section 165.2(1) of the *Vancouver Charter*. (k) negotiations and related discussions respecting the proposed provision of an activity, work or facility that are at their preliminary stages and that, in the view of the Council, could reasonably be expected to harm the interests of the city if they were held in public.

RECOMMENDATION

THAT Council approve a \$5.9 million increase to the multi-year capital project budget for the False Creek Centre Low Carbon Energy Expansion project, from \$14.2 million to \$20.1 million, to be funded by unused 2019 – 2022 debenture borrowing authority for the Neighbourhood Energy Utility.

REPORT SUMMARY

This report recommends budget adjustments to the False Creek Energy Centre Low Carbon Energy Expansion Project capital project. The project has been approved previously by Council, however, the budget adjustments are necessary to proceed with procurement of the construction and installation phase of the project, based on current cost estimates.

The adjustments in this report are being presented in camera and ahead of the next quarterly capital budget adjustment report scheduled for November 16, 2022 as a result of several factors related to the procurement process, as described in further detail later in this report, which

would undermine the City's ability to negotiate best value for the contract award. The adjustments to the project budget will be reported publicly following contract signing.

COUNCIL AUTHORITY/PREVIOUS DECISIONS

July 25, 2018 - City Council approved the 2019-2022 Capital Plan for the False Creek Energy Centre Low Carbon Energy Expansion project.

March 12, 2019 – City Council approved an application to CleanBC Communities Fund for a grant of up to \$10.7 million for the Neighbourhood Energy Utility's Sewage Heat Recovery Expansion project

July 8, 2020 – City Council approved the contract award for the supply and maintenance of two sewer heat recovery heat pumps, to expand the capacity of the system.

September 16, 2020 – Following procurement of the sewer heat recovery heat pumps below budget, Council approved a reduction in funding for the False Creek Energy Centre Low Carbon Energy Expansion project by \$2.6 million to \$14.2 million from the original \$16.8 million project budget.

February 9, 2021 – City Council authorized City staff to negotiate and execute an agreement with the Federation of Canadian Municipalities (FCM) Green Municipal Fund (GMF) for a loan of up to \$3.7 million and grant of up to \$0.6 million (15% of the loan) for the False Creek Energy Centre Low Carbon Energy Expansion project.

May 10, 2022 – City Council approved the contract award for the supply and maintenance of sewage screening equipment, to complement the sewer heat recovery heat pumps.

CITY MANAGER'S/GENERAL MANAGER'S COMMENTS

The City Manager recommends the foregoing.

REPORT

Background/Context

The Neighbourhood Energy Utility (NEU) was created in 2010 to provide low carbon energy to buildings in the False Creek area. The False Creek Energy Centre (FCEC) provides energy to the NEU consisting of low-carbon thermal energy, through a combination of sewage waste-heat recovery and natural gas boilers. Buildings serviced by the system pay energy utility fees for the heat received from the NEU, the system is not funded through property tax.

The NEU currently targets producing 70% of its energy from renewable sources, which results in substantial GHG emission reductions compared to traditional methods of providing heat and hot water to buildings. Currently, the existing sewage heat pumps supply ~38% of the plant's energy; renewable natural gas (RNG) is utilized for the balance. RNG has a cost premium above sewage heat recovery and continued supply is subject to availability from Fortis BC.

Since RNG is a constrained resource at a cost premium, it is preferable for the NEU to build its own low carbon capacity where practical.

Strategic Analysis

With new buildings being added to the NEU system every year, it is necessary to increase the capacity of the system. In the FCEC original design, physical space was left for the installation of additional sewage heat recovery capacity.

The False Creek Energy Centre Low Carbon Energy Expansion Project will triple the sewage waste-heat recovery capacity, by adding two new heat pump units totaling 6.6 MW of new capacity with additional sewage screens. The heat pump units are large custom-designed pieces of equipment, requiring over a year of lead time to procure, with complex construction to install and integrate into the existing system.

The project was originally fully funded with debt serviced through NEU rates. Staff subsequently applied for and received a \$10.2 million grant from CleanBC Communities Fund and a \$0.6 million grant from the Federation of Canadian Municipalities (FMC) Green Municipal Fund (GMF) toward the project. These external funds significantly reduced the amount of borrowing required to fund the project.

The project completion target is Q3 2023 in order for the new sewage heat recovery heat pumps to be available for the 2023-2024 heating season. To maintain schedule and to control equipment selection, the City procured the heat pumps while the overall design was still being finalized, and before procuring services for construction and installation.

The installation of the equipment and the associated mechanical and electrical work are not services that are done by the manufacturer of the heat pump units, necessitating a separate procurement for construction and installation. The initial project scoping and budgeting was insufficient for the complexity of the project. Engineering design costs increased due to the unique and complex requirements of the system requiring greater design consideration, stakeholder coordination and design specifications. Further, construction costs have been greatly exacerbated by the issues of supply chain and construction cost escalation present in the market.

The construction procurement was initiated in early 2022. An Invitation to Tender (ITT) was issued by the City on February 2, 2022. Only two bidders responded to the ITT, and the ITT was subsequently collapsed, as bids received did not meet project budget or tender requirements. The City then changed the construction procurement approach to work with Scott Special Projects Ltd. (SSP) as General Contractor, under the existing City-Wide Construction Contract.

SSP obtained quotes from the market for individual trades, and the quotes were received on August 9, 2022. These quotes reflect continued cost escalation, necessitating a \$5.9 million adjustment to the project budget (from a current project budget of \$14.2 million to \$20.1 million).

Capital budget adjustments are routinely recommended throughout the year as part of the normal process of capital delivery, as a result of new external funding, current projects progressing to the planning, design, and construction phases, and reallocations of project budgets based on current cost estimates. The next quarterly capital budget adjustment report is scheduled for November 16, 2022 in the public meeting of the Council Standing Committee.

Given current market dynamics and planned contract awards to the trades under SSP, the recommended budget adjustment has been accelerated in advance of the November 16 meeting. Further, public disclosure of any third party cost estimates would undermine the competitive leverage of the public procurement process and the City's and SSP's negotiating position by disclosing information on the City's estimates of cost escalation and contingency provision, this report is being brought forward in camera.

Delaying the installation of the additional 6.6 MW of sewage waste heat capacity would result in the NEU being more reliant on RNG and conventional natural gas to meet the heating demands of customers and could impact its ability to meet the 70% renewable energy environmental performance target for the system, particularly as new customers connected to the expanding NEU system.

In addition to the risk of meeting the environmental performance target, the delivered new sewage heat pumps would sit idle in the NEU plant until such time that they could be installed and commissioned, and could not contribute to the City's goals of reducing building GHG emissions, which could also have implications for the previously secured grants.

Financial Implications

Staff recommend the multi-year capital project budget for the False Creek Energy Centre Low Carbon Energy Expansion project be increased from \$14.2 million to \$20.1 million to address the cost escalation identified above. The \$5.9 million increase will be funded by a portion of the debenture borrowing authority for the Neighbourhood Energy Utility previously replaced by external grants received for the project that can be added to the 2019-2022 Capital Plan.

CONCLUSION

The capital budget adjustments recommended in this report will ensure that the capital project budget for the False Creek Energy Centre Low Carbon Energy Expansion project is sufficient to fund the installation of the new sewage heat recovery equipment based on current cost estimates, and will allow the existing system to be expanded to meet demand.

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