

## St. Paul's Hospital Combined Heat and Power Plant Project Cancellation

### ISSUE

Saskatoon Light & Power (SL&P) and the Saskatchewan Health Authority (SHA) agreed to co-build a 1.07 MW Combined Heat and Power (CHP) Plant at St. Paul's Hospital following the successful receipt of federal funding. SL&P was recently informed of SHA's decision to cancel the project.

### RECOMMENDATION

That the Standing Policy Committee on Environment, Utilities and Corporate Services recommend to City Council that the Capital Project 2330 – St. Paul's Hospital Combined Heat & Power Plant for a total estimated cost of \$3,079,200 (including taxes) be cancelled.

### BACKGROUND

City Council, at its meeting held on December 12, 2016, considered the establishment of a partnership with the Saskatoon Health Region and resolved, in part:

- “1. That the City of Saskatoon enter into a Memorandum of Understanding with the Saskatoon Health Region for the purpose of studying the feasibility of a Combined Heat and Power plant at St. Paul's Hospital.”

City Council, at its meeting held on June 12, 2017, considered acquiring consulting services for the feasibility study of a CHP Plant at St. Paul's Hospital and resolved, in part:

- “1. That the proposal submitted by Clark Engineering for the St. Paul's Hospital Combined Heat and Power Plant Feasibility Study, for a total cost of \$79,800 (including taxes) be accepted.”

City Council, at its meeting held on August 29, 2019, considered the implementation of the CHP Plant at St. Paul's Hospital in partnership with the SHA and Federal Government and resolved, in part:

- “1. That a capital project be created to co-build a Combined Heat and Power Plant at St. Paul's Hospital, for a total estimated cost of \$3,079,200 (including taxes) subject to a Public Notice Hearing for Borrowing, with the following funding sources:
  - federal funding for the project of \$1,190,000;
  - \$944,600 of external funding from the Saskatchewan Health Authority; and
  - \$944,600 from an internal Green Loan to be repaid through operating savings;

2. That the City of Saskatoon enter into a Memorandum of Agreement with the Saskatchewan Health Authority to co-develop, own, and operate a Combined Heat and Power Plant at St. Paul's Hospital.”

## **DISCUSSION/ANALYSIS**

### **Feasibility Study**

Combined heat and power plants operate on natural gas to produce both electricity and heat at the same time, with less greenhouse gas emissions than producing each separately. The CHP plant at St. Paul's Hospital would have produced electrical energy for SL&P that would flow into the electrical grid and thermal energy that would be used by the hospital in their heating systems. A feasibility study for the project was completed in July 2018, and recommended that two 555 kW CHP units would maximize environmental and economic benefit from the project. Total construction costs were estimated at \$3,079,200 (including taxes) resulting in a simple payback period of 13.7 years (with carbon offset credits).

### **Federal Government Funding**

In the spring of 2018, the Administration in conjunction with the SHA, submitted an application for Federal Government funding of this project through the Low Carbon Economy Fund – Champions stream fund. In June 2019, the Administration was notified of successful receipt of funding equalling 38.65% of the total project cost which reduced the simple payback period of the project to under 8.5 years. An agreement was signed with the Federal Government stating the City of Saskatoon as the primary recipient and the SHA as project partner.

### **Project Development**

Following project approval, the Administration continued to work with SHA to enter into a formal partnership agreement for the construction and operational phases of the project. Work on this agreement was stalled in part due to the COVID-19 pandemic concerns for the SHA. Subsequently, no further work was performed on developing the construction specification or tender documents as the agreement was not yet in place.

### **Project Cancellation**

The Administration was recently informed of SHA's decision to cancel the project. While the feasibility study identified a viable and cost-effective project, the SHA cited concerns about risk and reliability within the hospital setting as the main reasons for their decision. Work is underway to cancel the funding agreement previously signed with the Federal Government.

## **FINANCIAL IMPLICATIONS**

Consultant fees to complete the feasibility study were shared on a 50/50 basis between SL&P and SHA. SL&P funded its portion of the project costs from a capital project intended to study sustainable electricity generation options. This capital project received its funding from the utility without any impact to the mill-rate. SL&P has incurred \$108,181.44 of expenses to date.

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When approval was given to proceed with construction, Capital Project 2330 – St. Paul's Hospital Combined Heat & Power Plant was created. No costs have been incurred in this project and no funding was received from the federal government to date. Based on SHA's decision to no longer be a partner in the project, the Administration is recommending that the project be cancelled. The City's portion of funding for the project was anticipated through a green loan, therefore there are no funds to be returned to source.

### **OTHER IMPLICATIONS**

The implementation of the CHP plant at St. Paul's Hospital was identified as one of the top 10 actions with greatest savings per tonne of emissions through the Marginal Abatement Cost analysis in the Low Emissions Community Plan. This project was included in the actions to meet community greenhouse gas emission reduction of 15% in 2023.

### **NEXT STEPS**

The Administration will continue to look for opportunities to implement a combined heat and power project with other partners in the future.

#### **Report Approval**

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Approved by: Angela Gardiner, General Manager, Utilities & Environment

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