



Report n°: MF2023-004

Date: May 18 2023

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Subject: Recreational Complex – Replacement of primary and secondary boilers

### Nature/Goal

The objective of this report is to receive council approval and appropriate funding to proceed with the replacement of the secondary boiler at the recreational and cultural complex.

### Directive/Previous policy

Council approved an amount of 110 000\$ within the 2023 capital budget to replace the primary boiler at the recreational and cultural complex.

### Department's recommendation

**WHEREAS** Council approved an amount of 110 000\$ within the 2023 capital budget to replace the primary boiler at the recreational and cultural complex; and

**WHEREAS** the building condition assessment completed in February concludes that the secondary boiler is at the end of its useful life and should be replaced within the next year; and

**WHEREAS** the replacement of the two boilers simultaneously allows to modify the technology used in order to install an ultra-efficient system as explained in the report MF2023-004; and

**WHEREAS** the costs for the replacement of the second unit and the installation of a more efficient system are not included in the 2023 approved budget; and

**BE IT RESOLVE THAT** Council authorize an additional funding of 190,000\$ to proceed with option 2 as explained in report MF2023-004; and

**BE IT RESOLVED THAT** the additional funding requested would be financed through the Recreational and Cultural complex reserve; as recommended.

**ATTENDU QUE** le conseil a approuvé au budget capital 2023 un montant de 110 000\$ pour remplacer la chaudière principale au complexe récréatif et culturel; et

**ATTENDU QUE** l'évaluation de l'état du bâtiment complété au mois de février conclut que la chaudière secondaire a atteint la fin de sa durée de vie utile et devra être changée dans la prochaine année; et

**ATTENDU QUE** le remplacement des deux chaudières simultanément nous permet de modifier la technologie afin d'installer à un système ultraefficace tel qu'expliqué dans le rapport MF2023-004; et

**ATTENDU QUE** le remplacement de l'unité secondaire et l'installation d'un système plus efficient ne sont pas incluent au budget 2023; et

**QU'IL SOIT RÉSOLU QUE** le conseil autorise l'augmentation du budget au montant de 190 000\$ pour procéder avec l'option 2 telle qu'expliquée dans le rapport MF2023-004; tel que recommandé

## Background

The recreational and cultural complex utilizes two medium efficiency boilers that provide hot water to the Aquatic Centre/Fitness Centre change rooms, the library, as well as heat for the gymnasium area. The boilers were installed upon the initial construction in 2008. In the past few years, the primary boiler started to show some signs of deterioration causing frequent problems which lead to its complete decommissioning last year. The overall building hot water needs are currently provided by the secondary boiler putting significant pressure on the unit. Last January, Council approved an amount of 110 000\$ within the 2023 capital budget to replace the primary boiler.

In February 2023 the administration completed a Building Condition Assessment (BCA) of the recreational complex. Within this assessment the replacement of the secondary boiler was identified as a priority within the next year primarily due to its age and high maintenance cost.

Once the BCA recommendations were received by staff, a meeting with the HVAC engineering firm was organized to discuss the different options. It was determined that simultaneous replacement of both units would allow for the installation of an overall more energy efficient system.

Considering the new information received, the possible change in the scope of work and associated cost, the administration had to come back to council to obtain a directive.

## Discussion

The following options are to be considered by council:

### Option 1: Status quo

The administration would follow through with the initial project as approved within 2023 budget. The administration would replace the primary boiler with the older technology this year and bring a request for funds during the 2024 budget process to replace the secondary boiler.

#### Pros:

- Respects the 2023 approved capital budget
- Overall capital cost of the project is lower than option 2

#### Cons:

- Require a longer downtime of the YMCA and Library closure as the replacement of both boilers will require a full-building shutdown on two different occasions within the next year.
- Technology used is 15 to 20% less efficient compared to option 2.
- There will be no annual natural gas cost savings.
- Higher annual maintenance cost compared to option 2.
- Possible downtime at every maintenance
- Higher gas emissions / Higher carbon footprint compared to option 2.

## Option 2:

The administration would proceed with the replacement of both existing boilers with a newer technology that would allow a significantly higher efficiency.

### Pro:

- Newer and more efficient technology
- Estimated savings of 9 000\$ a year in gas consumption alone
- Additional funding requested to be repaid within 7-9 years of operation due to gas consumption savings.
- Lower annual maintenance cost compared to option 1.
- The modular design of the new system will eliminate future downtime caused by maintenance.
- Lower gas emissions / Lowers the City's carbon footprint.

### Con:

- Higher overall capital cost for the project compared to option 1.
- Doesn't respect the 2023 approved capital budget.

Considering the above-mentioned facts, it is the administration's recommendation to proceed with option 2.

## Consultation

N/A

## Recommendations or comments from committee/ other departments

N/A

## Financial impact (expenses/material/etc.)

There would be no direct financial impact associated with option 1 as the budget was already approved during the 2023 budget process. It is to be noted that staff would bring back a request for the 2024 budget to replace the secondary boiler for an estimated cost of 110 000\$.

The second option requires an additional funding of 190 000\$ to be spent in 2023.

The overall difference in price between option 1 and option 2 is an amount of 80 000\$. As mentioned in the report, the operational cost savings of option 2 due to the reduction of natural gas consumption would allow the municipality to recoup its investment within 7 to 9 years.

The additional funding required to complete the project would be paid by the recreational and cultural complex reserve fund.

## Legal implications

N/A

## Risk management

N/A

### Strategic implications

As per the Environmental Responsibility pillar of the municipality strategic plan:

*"The municipality has a significant amount of infrastructure that needs to be maintained in an environmentally responsible manner. The municipality must ensure that timely rehabilitation work is implemented to protect our environment while meeting the needs of the community. It is anticipated that the municipality will continue to grow thus placing further pressures on sound environmental stewardship."*

### Supporting documents

None