

# **Corporation of the Town of Hawkesbury**

## **Recommendation to Council**

N°: 2019\_REC\_82

File N°:

Date of meeting: October 15, 2019

Subject: Arena Refrigeration System Replacement Feasibility Study

### **Recommendation**

Whereas the arena refrigeration plant at the Robert Harley Sports Complex currently uses R22 Freon as a refrigerant, and;

Whereas Canada, through the Montreal Protocol has committed to the phase-out schedule for domestic consumption of HCFCs, including R22 Freon by January 1, 2020.

Be it resolved to adopt the Arena Refrigeration System Replacement Feasibility Study and recommendations mad within, as recommended in document 2019\_REC\_82.

### **Explanation, history, context**

Built in 1978, the arena at the Robert Hartley Sports Complex has an indirect, closed refrigeration system using R22 Freon as the primary refrigerant. Hydrochlorofluorocarbons (HCFCs), such as R22 Freon have been used as refrigerants since the 1930's.

Through the Montreal Protocol, Canada had committed to the phase-out of all HCFCs, including R22 Freon by January 1, 2020. After that time, only recycled R22 will be available for purchase until 2030 when HCFCs will no longer be available in any format.

Furthermore, the sports complex originally had two ice sheets, each operating with four (4) compressors. The secondary ice sheet has since been decommissioned; therefore, the two (2) groups of four (4) compressors are currently being used for the one (1) ice sheet. This practice, although convenient, is not energy efficient and does not allow us to meet the targets set out in the municipal Energy Conservation and Demand Management Plan 2019-2024.

Accordingly, TST Energy Systems Inc. was retained during a competitive bid process to perform a feasibility study in order to offer the best option to replace the arena

refrigeration system with a new, non ozone-depleting refrigerant that also includes heat recovery potential and economic efficiency.

**Options/alternatives**

1. Not adopt the Feasibility Study.

**Impact on budget**

The study lists projects and activities that will need to be planned for and incorporated into the financial plan (2020-2024).

**Relevant studies**

Comparative Study of Refrigeration Systems for Ice Rinks – Natural Resources Canada

**Supporting document**

Arena Refrigeration System Replacement Feasibility Study (under separate cover)

**Communication plan**

None. A communication plan will be developed if the refrigeration system is to be replaced.

**Department(s) involved**

Recreation and Tourism

Finance

**Submitted and recommended by**

Nicole Trudeau, October 4, 2019

**Comments of the Chief Administrative Officer**

Since the report is not complete, I reserve my comments once I have reviewed the final report.

Daniel Gatien, CAO



### Report Approval Details

Document Title:	2019-REC-82_arena_refrigeration_feasibility_study_ang.docx
Attachments:	
Final Approval Date:	Oct 10, 2019

This report and all of its attachments were approved and signed as outlined below:

A handwritten signature in black ink, consisting of a series of loops and a long horizontal stroke extending to the right.

**Daniel Gatien - Oct 10, 2019 - 2:18 PM**