



CITY OF WILLIAMS LAKE COUNCIL REPORT

DATE OF REPORT: February 22, 2022
DATE & TYPE OF MEETING: March 23, 2022 Central Cariboo Joint Committee Meeting
AUTHOR: Stacey Miranda, Director of Community Services, City of Williams Lake
SUBJECT: INVESTING IN CANADA INFRASTRUCTURE PROGRAM (ICIP) – BRITISH COLUMBIA – CLEANBC COMMUNITIES FUND
FILE: 7900-10; CC 1855-03-01

Recommendation

That the Joint Committee endorse the application to the Province's Investing in Canada Infrastructure Program (ICIP) British Columbia 'Clean BC Communities Fund', by way of resolution, for the Energy Recovery Project at the Cariboo Memorial Recreation Complex; and further, that the Joint Committee direct staff to budget future funds as required, should the grants be successful.

Purpose

After completing the Energy Recovery Study, a project report was given to City of Williams Lake Community Services outlining the best options for heat recovery systems at the CMRC and Greenhouse Gas Emission reductions. This report request support to apply to a grant funding source to complete the project as outlined in the attached study. Clean BC will be sending an update on the application in the next two weeks, which could amount to \$200,000.00 as an incentive to move forward with the project.

Background / Discussion

The Government of Canada and the Province of British Columbia announced they are committing up to \$134 million for the Clean BC Communities Fund (CCF) under the Investing in Canada Infrastructure Program (ICIP). Local governments, Indigenous Communities and Not-for-Profit organizations across British Columbia are eligible to receive funding up to 73.33% of eligible project costs. The intent is to layer the grant funding for this application and project with the Clean BC and the Communities fund to enable the project to come to fruition.

Projects supported in this intake are from 2023 to 2027. The focus of this intake is to put BC on a path to a cleaner, better future with a low-carbon economy that creates opportunities for all while protecting our clean land, air, and water. The Clean BC Communities Fund is a collaborative between the BC Ministry of Environment and Climate Change Strategy and the Ministry of Municipal Affairs in close partnership with Infrastructure Canada.

The energy recovery system outlined in the attached report has been designed using state-of-the-art technology and will make the Cariboo Memorial Recreation Complex one of the most energy efficient facilities of its kind in North America. The owners of the facility, Cariboo Regional District, would be the applicant for this ICIP grant.

Financial Considerations (Cost and Resource Allocation)☒ Yes

Budget amounts would be required for 2023 and 2024 for the Cariboo Regional Districts portion of the project costs (27.77%). The Clean BC grant, if successful, could add funding up to \$200,000 to this project.

Based on the study, A ROM cost breakdown was completed to determine the equipment and labor costs that would be associated with the installation of the proposed heat recovery system. The price below has been calculated for the proposed high-temperature heat pump option available to the CMRC:

High-Temperature Heat Pump: \$600,000

This value has a +/-30% contingency. Please note that this total does not include engineering costs or any unforeseen building upgrades, such as structural items.

It is important to note that these funds are not a part of the application, nor will they be part of the engineering costs required to start this project, should the grant submission be successful.

Legislative Considerations (Applicable Policies and/or Bylaws)☒ Yes

Ensuring the adequate tracking of progress, reporting and use of funds is dictated in the application and if successful, would be followed by the financial reporting departments of both the Cariboo Regional District and the City of Williams Lake.

This project aligns with the following Strategic Priority Areas:

- ☒ Resilient and Diversified Economy
- ☒ Strong Community Relationships
- ☒ Financial Stability and Sound Asset Management
- ☒ Positive Community Image
- ☐ Healthy and Inclusive Workplace
- ☐ Other

Other Implications (Environmental/Social/Economic)☒ Yes

Our project leaders, Polar Engineering, recognized that the heat currently being rejected by the BAC condenser at the CMRC could be harnessed to provide a large portion of the thermal energy required by the amenities on the pool side of the facility.

Heating requirements of the facility's amenities were determined, and calculations were carried out to determine the amount of energy that can be recovered from the Cariboo Memorial Recreation Complex's ammonia refrigeration plant. Due to the large amount of heat available from the

refrigeration system at the CMRC (6,635 GJ/year), a significant portion of the heating load of the natural gas boilers can be met using the proposed high temperature heat pump. Since the heat pump will be recovering energy from the ammonia refrigeration plant during operating months the BAC evaporative condenser used to release excess heat into the atmosphere will have to operate significantly less. The condenser fan will consume 15 HP less per hour not running, and the condenser pump will consume 3 HP less per hour not running. This will reduce the electrical usage of the heat pump and leads to electrical savings of 53,927 kWh/year.

This has significant decrease for the CMRC's environmental impact; the installation of the proposed LCE heat recovery system because it would lead to a decrease in the facility's natural gas usage, and ultimately a 69% reduction in greenhouse gas emissions.

****Please see the study report for details.***

This report has been prepared in consultation with:

Gary Muraca, CAO, City of Williams Lake

Approved for Agenda by:

Chief Administrative Officer

Respectfully submitted,

Stacey Miranda
Director of Community Services

ATTACHMENTS:

Attachment A – Williams Lake Clean BC Energy Study Report December 2021

Attachment B – ICIP Highlights Page

Attachment C – Investing in Canada Infrastructure Program - Communities Fund Intake 3 Program Guide January 2022 [icip-clean-communities-fund-program-guide.pdf \(gov.bc.ca\)](https://www2.gov.bc.ca/gov/content/infrastructure/communities-fund-program-guide.pdf)

Attachment D – Biography of Polar Engineering