

**DATE:** November 9, 2020

**TO:** MAYOR AND COUNCIL

**NAME AND TITLE:** IAN WELLS, ACTING DEPUTY CITY MANAGER

**SUBJECT:** Clean BC Communities Fund Grant Application; Kin Centre Arenas Chiller Replacement Project

**ATTACHMENT(S):** None

**RECOMMENDATION(S):**

That Council:

- a. *APPROVES the Prince George Kin Centre Arenas Chiller Replacement project to be added to the 2021 – 2025 Financial Plan having a total project cost of \$4,450,000 with funding sources of \$3,259,519 third party funding and \$1,185,482 from the Carbon Tax Reserve Fund;*
- b. *APPROVES the City of Prince George submitting a grant funding application for the Kin Centre Arenas Chiller Replacement project through the Investing in Canada Infrastructure Program – Green Infrastructure: Climate Change Mitigation Sub-Stream CleanBC Communities Fund;*
- c. *AUTHORIZES the City of Prince George Financial Officer and Acting City Manager to sign grant application documents and any resulting contract documents should grant approval be received.*

**PURPOSE:**

Administration requests Council's authorization to apply for grant funding from the Investing in Canada Infrastructure Program – Green Infrastructure: Climate Change Mitigation Sub-Stream CleanBC Communities Fund for the Kin Centre Arenas Chiller Replacement project at 2187 Ospika Boulevard. Administration also seeks Council's authorization to commit \$1,185,482 (26.67% portion of project costs) from the City Carbon Tax Reserve Fund towards the project.

**BACKGROUND:**

The Kin Centre Arenas are the city's primary community arena facility located within Exhibition Park; one of the city's premier multi-purpose parks located within the centre of the City. Prince George functions as the northern hub for sporting and entertainment events, and the Kin Centre Arena is the region's premiere arena facility for tournament hosting with 3 ice sheets that accommodate various ice sports, as well as off-season community dryland events and City emergency response activities.

The Kin Centre Arena refrigeration plant system is near the end of its estimated service life, resulting in lower efficiency with higher operating costs and requires replacement. Replacement of the system is also required to meet the current Technical Safety BC regulations for refrigeration plant systems stemming from a BC arena ammonia leak in 2017.

#### **DISCUSSION:**

The second intake of the federal Investing in Canada Infrastructure Program, Climate Change Mitigation Sub-Stream CleanBC Communities Fund (CCF) has been made available with an application deadline of November 12<sup>th</sup> 2020.

The ICIP grant program identifies that a Resolution of Council is required to complete the grant application package, subject to Council approval, and can be provided shortly after the grant application submission deadline. Administration has submitted the grant application identifying that it is contingent on Council approval.

The proposed application for the Kin Centre Arenas Refrigeration & Energy Recovery Upgrades project includes the replacement of the refrigeration plant system to support ongoing use, recover energy for reduced greenhouse gas (GHG) emissions, reduce water consumption, reduce ammonia charges, and improve the overall safety of arena operations.

The proposed project includes:

- Ammonia refrigeration plant replacements and upgrades, including installation of a heat recovery system to recover heat from the ammonia refrigeration plant and use it for building heat
- Facility integration updates
- Demand side management requirements including updated control systems

This project will:

- Replace aging Chiller equipment nearing the end of its useful life
- Replace Chillers with a longer expected service life assets
- Meet current safety recommendations set out by Technical Safety BC for Ammonia Refrigeration Plant Equipment
- Reduce the ammonia charge by approximately 70%
- Include a heat recovery system to capture and divert waste heat back into the facility that would offset the facility's natural gas consumption by an estimated 77%
- Reduce Greenhouse gas emissions by an estimated 323 tCO<sub>2</sub>e annually (73% of current facility emissions)
- Reduce Water Consumption by an estimated 765,000 US gallons equivalent to an Olympic sized pool

The proposed project achieves the funding grant outcome for *increased energy efficiency of buildings*.

Projects must begin prior to fall 2022 with full project completion by March 31, 2026. The announcement of federal ICIP grant funding is anticipated in late 2021. A successful announcement of grant funding for the City would be followed by detailed design work and construction in 2022.

#### **STRATEGIC PRIORITIES:**

The proposal supports the Council Focus Areas:

- *“Provide a workplace where employees are safe and healthy...”*

- *“Prioritize infrastructure re-investment and renewal to ensure the delivery of critical recreation, emergency, transportation, and utility services.”*
- *“Pursue operations and activities that conserve water and energy ...and consider environmental sustainability”;*
- *“Maintain fiscal sustainability and balance service levels with affordability of City services, facilities, and operations.”*

#### **FINANCIAL CONSIDERATIONS:**

The total estimated cost for the Prince George Kin Centre Arenas Chillers Replacement project grant submission is \$4,450,000. Under the ICIP program, up to 73.33% of the project costs can be covered by federal (up to 40%) and provincial (up to 33.33%) contributions (\$3,259,519 grant request). The City’s portion of the project cost, \$1,185,482 (26.67%), would be contributed from internal reserves through the Carbon Tax Reserve Fund.

#### **SUMMARY AND CONCLUSION:**

The Kin Centre Arena chiller project includes the replacement of the refrigeration plant system of an aging asset to support ongoing use, recover energy for reduced greenhouse gas (GHG) emissions, reduce ammonia charges, and improve the overall safety of arena operations.

The City is requesting Council’s authorization to apply for grant funding to the Investing in Canada Infrastructure Program – Green Infrastructure: Climate Change Mitigation Sub-Stream CleanBC Communities Fund, along with a commitment to utilize the Carbon Tax Reserve Fund to fund the City’s \$ \$1,185,482 contribution as the project works to vastly decrease Greenhouse Gas emissions by 73%, and to substantially decrease ammonia and water use. A successful application would net provincial and federal funding of close to three quarters (\$3,259,519) of the total project costs.

#### **RESPECTFULLY SUBMITTED:**

Ian Wells, Acting Deputy City Manager

**PREPARED BY:** Tiina Schaeffer, Manager of Infrastructure Planning & Engineering

#### **APPROVED:**

Walter Babicz, Acting City Manager

Meeting Date: 2020/11/23