THE CORPORATION OF THE
DISTRICT OF SUMMERLAND
INFORMATION REPORT

DATE: February 27, 2023 FILE: 0810-01

TO: Graham Statt, Chief Administrative Officer

FROM: Lori Mullin, Director of Community Services

SUBJECT: Green and Inclusive Community Buildings (GICB) Grant Application Update

---

STAFF RECOMMENDATION:

That Council pass the following resolution:

> ***THAT the "Green and Inclusive Community Buildings (GICB) Grant Application Update" report from the Director of Community Services dated February 27, 2023, be received for information.***

STRATEGIC PRIORITY:

To Enhance Our Quality of Life

CULTURAL IMPACT STATEMENT:

Providing recreation facilities and amenities supports community vibrancy and a healthy and connected community.

PURPOSE:

To receive an update on the Green and Inclusive Community Buildings (GICB) grant application progress.

DISCUSSION:

The District of Summerland engaged the services of the Sustainable Projects Group (SPG) to investigate options for the Summerland Recreation Centre project to achieve net-zero construction and to work with District staff to complete the Green and Inclusive Community Building (GICB) grant application requirements.

The consultants have confirmed the Summerland Recreation Centre project is able to achieve net-zero building construction by including the following components:

Recreation Centre Rooftop Solar PV (photovoltaics)

- Roof mounted 260kW solar PV system to be located on the new Recreation Centre roof to offset electricity consumption of the Recreation Centre.

Existing Arena Rooftop Solar PV

- Roof mounted 360kW solar PV system to be located on the existing Arena to offset electricity consumption of the Recreation Centre.

Parking Lot Carport Solar PV

- 110kW carport solar PV system to be located on the new parking area northwest of the Recreation Centre to offset electricity consumption of the Recreation Centre.

Recreation Centre Rooftop Solar Thermal

- 208kW solar thermal water heating system to be located on the rooftop of the Recreation Centre to offset pool heating demand.

Geoexchange Ground Heat Exchanger System

- Heat reclaim from the existing adjacent ice plant will meet direct pool heating demands when concurrent demand exists. When there is no concurrent demand for all, or some of the heat reclaim, then some or all of the heat can be circulated to a geoexchange ground heat exchanger (GHX) that would be built in in the parking lot area of about 2,800 m^2. The ground conditions of this site consist of 40 feet of dry gravel and sand upper veener, slightly moist lacustrine silt, and bedrock that is approximately 300 ft deep. The GHX configuration would consist of 100 boreholes of 300 ft deep each at 15-foot bore-to-bore spacing. The heat reclaim system from the ice plant and GHX system will provide space heating and cooling needs, and dehumidification needs to the Recreation Centre via a hydronic heat recovery system and central heat recovery chiller.

The total costs for these components are $8,531,548 which includes design allowances and construction contingency. While there is an initial capital investment for building a net-zero carbon facility, these upgrades will result in a reduction in operational expenses through more energy efficient systems.

While the current preliminary design is sufficient to achieve net-zero carbon, any net carbon emissions can be offset via virtual net metering of the District's Solary+Battery project. Integrating these projects will allow us to capitalize on the existing solar arrays, minimize waste, and promote renewables in the community.

The GICB program is highly competitive with over 1000 applications seeking close to $7 billion in the first intake. Many of the applicants who were not successful in the first intake will be resubmitting and it is expected the second intake will also be extremely competitive.

We are collecting letters of support from: MP Dan Ashton, MLA Dan Albas, Minister of Municipal Affairs Anne Kang, Penticton Indian Band, RDOS, City of Penticton, District of Peachland, Summerland Chamber of Commerce and Tourism, School District 67, UNISUS School, Orca Swim Club, Orca Masters Swim Club, Recope, and Summerland Support Group.

The grant application will be submitted to meet the February 28, 2023 application deadline.

It is anticipated that the screening process and announcements will take 6-12 months. Council can decide on whether to proceed with the construction of a net-zero carbon building once the grant announcements are made.

BACKGROUND:

On December 5, 2022, the Government of Canada announced that the Green and Inclusive Community Buildings (GICB) Program is launching its second scheduled intake. The GICB Program is a national merit-based Program with the objective of improving the availability and

condition of community buildings in Canadian communities experiencing higher needs and who are currently underserved.

The scheduled competitive intake for large retrofits and new buildings are for projects that range in size from $3,000,000 to $25,000,000 in total eligible costs. Projects in excess of $25,000,000 may be considered on a case-by-case basis.

The application deadline is February 28, 2023. Projects must be effectively delivered by March 31, 2026, either to complete the project or bring the project to a next phase of funding for completion where the investments are secured.

At the January 9, 2023 Council Meeting, Council passed a resolution that an application for the Green & Inclusive Building Program is supported to obtain funding towards the Summerland Recreation Centre project.

LEGISLATION and POLICY:

- Part 4, *Local Government Act* (Assent Voting)

FINANCIAL IMPLICATIONS:

The 2023 Capital Budget has an allocation of $100,000 for the implementation of next steps and consultants support for the Recreation Centre project.

Reviewed by Financial Services:



Staff have submitted a grant application to the UBCM Strategic Priorities Fund delivered through the Canada Community-Building Fund in BC (formally known as the Gas Tax Fund) for $6 million under the Capital Infrastructure stream for the Recreation Centre project. It is anticipated that grant announcements will be made in Spring 2023 according to the grant website.

To proceed with constructing a net-zero carbon Recreation Centre, the overall project cost with the addition of the net-zero carbon components is currently estimated at $57,512,942. The District of Summerland is applying to receive $25 million dollars (may be eligible up to $29,756,471) of federal government grant funding through the GICB program. If successful in receiving the GICB grant funding, the potential estimated net project cost would be $32,512,942.

As this project is of a significant scale, Council will require the approval of the electors to borrow the funds needed for construction. Due to the estimated borrowing amount, Council has previously directed that a referendum ("assent voting") be conducted to obtain this approval, in accordance with Part 4 of the *Local Government Act*. Timing of a referendum is currently targeted to be discussed with Council after the UBCM Strategic Priorities Fund announcements have been made (Spring 2023).

SUPPORTING DOCUMENTS:

1. Sustainable Project Group – Presentation Slides

CONCLUSION:

Staff continue to complete project milestones working towards the goal of replacing the Summerland Aquatic & Fitness Centre, which is nearing the end of its serviceable life.

OPTIONS:

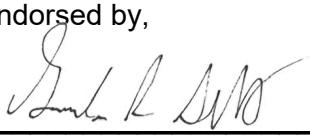
1. Move the motion as recommended by staff.
2. Refer to staff for other options.

Respectfully submitted,



Lori Mullin
Director of Community Services

Endorsed by,



Graham Statt
Chief Administrative Officer

Presentation: Yes ☒ No ☐



SUMMERLAND NET ZERO RECREATION CENTRE

GICB OVERVIEW

SPG

AGENDA

- GICB Program
- Net Zero Preliminary Design
- Budget Impacts

GICB PROGRAM

- Offers funding for Retrofits and New Builds (up to $25M)
- New builds must be Zero Carbon Design (ZCB) V3 or ZCB Ready (transition plan needed)
- Prioritizes higher needs communities
  - Lower socio-economic status, remote/rural populations
  - Equity deserving populations (Indigenous people, women, youth, seniors, LGBTQ+, etc.)

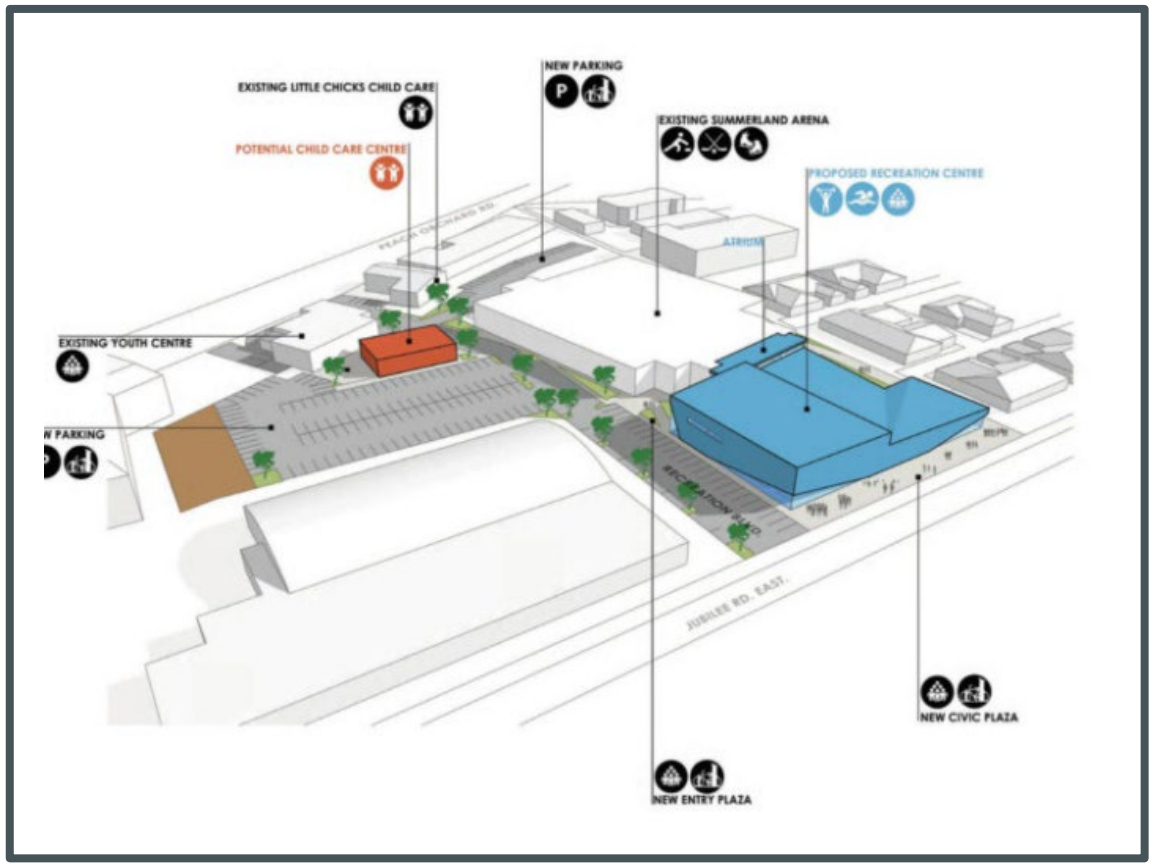
ZERO CARBON DESIGN STANDARD

- Guides design of new buildings to achieve zero carbon operations
- Must gain design certification upon construction completion
- Guiding principles;
  - Prioritize carbon emissions reductions
  - Ensure energy efficient design
  - Encourage good grid citizenship
  - Incentivize reductions in embodied carbon
  - Keep it simple and accessible



Carbon	Zero carbon balance	Model a zero carbon balance
	Embodied carbon	Minimum level of performance required
	Refrigerants	Report total quantity
	RECs and carbon offsets	Provide quote
	Onsite combustion	For space heating, only below -10 C Provide a transition plan
Energy	Energy efficiency	Meet one of three approaches
	Peak demand	Report seasonal peaks
	Airtightness	Report and justify modelled value
	Impact & Innovation	Apply two strategies

SUMMERLAND RECREATION CENTRE APPROACH



- Built off design by Carscadden Stokes McDonald Architects Inc., incorporated renewable systems to offset heating/cooling/ventilation and electricity loads:
  - Aquatic Centre Rooftop Solar PV
  - Existing Arena Rooftop Solar PV
  - Parking Lot Carport Solar PV
  - Aquatic Centre Rooftop Solar Thermal
  - Geoexchange Ground Heat Exchanger System

RECREATION CENTRE ROOFTOP SOLAR PV

- Roof mounted 260 kW solar PV system on south facing elevation (50% of roof space)
- Offset electricity consumption



Recreation Centre Rooftop Solar PV		
ROM Cost	$	480,134.00
Contingency (20%)	$	96,026.00
Total	$	576,161.00

ARENA ROOFTOP SOLAR PV

- Roof mounted 360kW solar PV system on ice rink
- Offset electricity consumption



Existing Arena Rooftop Solar PV		
ROM Cost	$	673,334.00
Contingency (20%)	$	134,667.00
Total	$	808,001.00

PARKING LOT CARPORT SOLAR PV

- 110 kW carport solar PV system in new parking area, northwest of Recreation Centre
- Offset electricity consumption



Parking Lot Carport Solar PV		
ROM Cost	$	348,670.00
Contingency (20%)	$	69,734.00
Total	$	418,404.00

RECREATION CENTRE ROOFTOP SOLAR THERMAL

- 208 kW solar thermal water heating system located on rooftop of Recreation Centre
- Offset pool heating demand

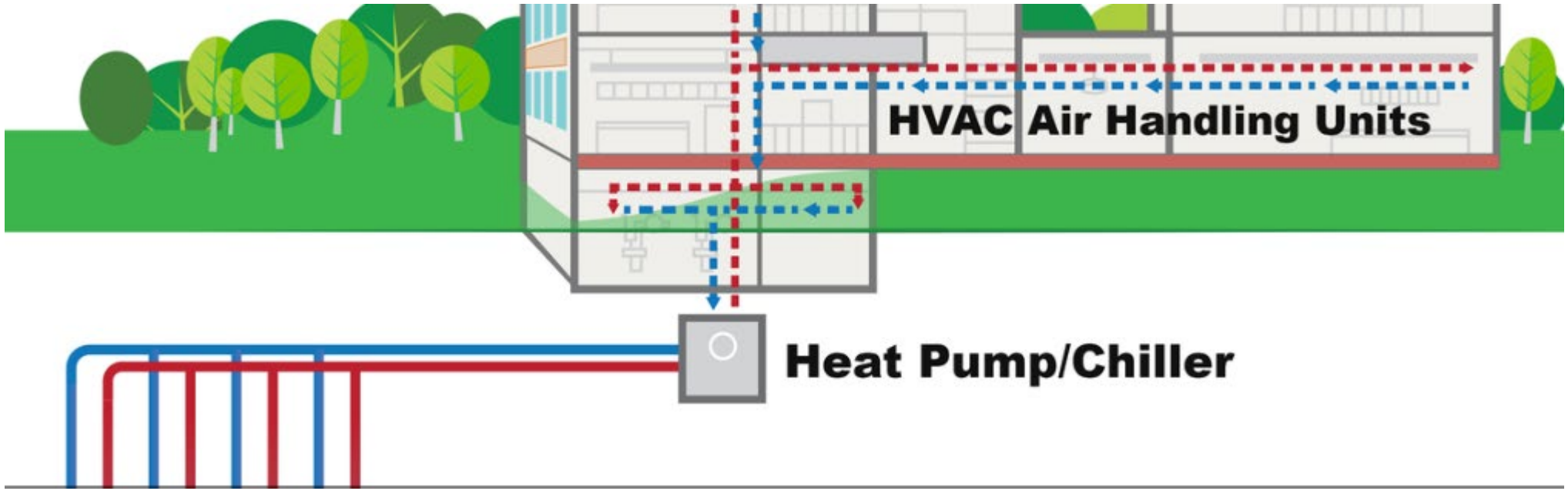


Recreation Centre Rooftop Solar Thermal		
ROM Cost	$	583,031.00
Contingency (20%)	$	116,606.00
Total	$	699,637.00

GEOEXCHANGE GROUND HEAT EXCHANGER SYSTEM

- Heat reclaim from existing adjacent ice plant
- When concurrent demand exists- waste heat can directly meet pool heating demand
- When no concurrent demand for all or some of heat reclaim- waste heat can be circulated to geoexchange ground heat exchanger (GHX) built into new parking lot area (~2,800 m2)
- GHX configuration consist of 100 boreholes, 300 ft deep at 15 ft bore to bore spacing
- Provide space heating and cooling, dehumidification needs via hydronic heat recovery system and central heat recovery chiller

Geoexchange Ground Heat Exchanger System		
ROM Construction Cost (groundworks)	$	1,000,000.00
ROM Cost (equipment/installation)	$	3,430,400.00
Contingency (18%)	$	797,472.00
Design Allowance (18%)	$	797,472.00
Total	$	6,025,344.00


HVAC Air Handling Units
Heat Pump/Chiller

TOTAL ADDITIONAL COSTS (ZERO CARBON BUILD)

Recreation Centre Rooftop Solar PV			
	ROM Cost	$	480,134.00
	Contingency (20%)	$	96,026.00
	Total	$	**576,161.00**
Existing Arena Rooftop Solar PV			
	ROM Cost	$	673,334.00
	Contingency (20%)	$	134,667.00
	Total	$	**808,001.00**
Parking Lot Carport Solar PV			
	ROM Cost	$	348,670.00
	Contingency (20%)	$	69,734.00
	Total	$	**418,404.00**
Recreation Centre Rooftop Solar Thermal			
	ROM Cost	$	583,031.00
	Contingency (20%)	$	116,606.00
	Total	$	**699,637.00**
Geoexchange Ground Heat Exchanger System			
	ROM Construction Cost (groundworks)	$	1,000,000.00
	ROM Cost (equipment/installation)	$	3,430,400.00
	Contingency (18%)	$	797,472.00
	Design Allowance (18%)	$	797,472.00
	Total	$	**6,025,344.00**
	Zero Carbon Design Certification	$	**4,001.25**
	TOTAL	$	8,531,548.25

GICB FUNDING POTENTIAL

- Maximum funding up to $25M, with larger projects considered on a case-by-case basis
- 60% funding up to $9,999,999, 50% for costs $10M+

Total estimated costs: $57,512,942.25 (estimate currently being refined)

Total funding request: $25M (may be eligible for $29,756,471)

Potential estimated net project cost: $32,512,942.25



THANK YOU!