

DECISION/DIRECTION NOTE

Title:	Corporate Energy Performance Contract Implementation
Date Prepared:	October 31, 2022
Report To:	Special Meeting of Council
Councillor and Role:	Councillor Ian Froude, Transportation and Regulatory Services & Sustainability
Ward:	N/A

Decision/Direction Required:

For Council to direct staff to proceed with the implementation of the Corporate Buildings Energy Performance Contract a “self-funded” program to modernize building systems, reduce deferred maintenance, improve facility resilience and reduce greenhouse gas emissions through guaranteed energy savings.

Discussion – Background and Current Status:

The City of St. John’s strives to be an effective and a sustainable City today and for future generations. These are two strategic directions expressed in the City of St. John’s Strategic Plan. City of St. John’s Council has re-enforced its ongoing commitment to act by improving organizational performance, investing in infrastructure upgrades, and contributing to action on climate change. This includes the Resilient St. John’s Community Climate Plan, adopted unanimously by council in March 2022, and the City Corporate Climate Plan adopted unanimously by council in May 2021. St. John’s is committed to the following targets in their Corporate Climate Plan:

- 40% reduction by 2030 and stretch target of 50% by 2030 from 2018 emissions.
- Net-zero by 2050 at the latest.

Buildings and facilities represent one of the most significant capital and operating costs of a municipality. The City of St. John’s over 40 buildings (counting only city operated administration, recreation, firehalls, depots, water treatment, waste water treatment, the Mary Brown’s Centre & SJCC) have a utility cost of over \$6.7M per year. These utility costs were particularly impacted by rising fuel costs in the last year.

In addition to annual utilities the City needs to invest in operations and maintenance of these assets and has a long list of near term and long term capital investments needed. This

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includes a number of pieces of equipment that are either approaching end of life or would benefit from renewal. It is important to remember that an aging building portfolio is more expensive to operate, is less energy efficient, encompasses more risk of failure and a sudden cost, and emits more greenhouse gases. For example, a boiler at or near end of life will catastrophically fail when under it's heaviest load, in the dead of winter. Emergency replacement is very difficult and expensive, and difficult on the people living and working in the City.

Failure to modernize can lead to high operating costs, high unexpected costs, and a premature need to replace a facility as overall condition worsens.

The Energy Performance Contract (EPC)

Throughout 2020-2022 the City and Honeywell worked together to complete a preliminary Opportunity Assessment, which benchmarked and identified City facilities with high energy use and identified energy saving and GHG reducing opportunities. Subsequently, Honeywell was awarded (through competitive RFP) a contract to develop a detailed Building Energy Improvements Report. This energy and facility renewal work included energy audits, feasibility and design, financing, savings calculations, staff engagement, grant applications, and other support to characterize the investment required from the City to implement. This is all to ensure the constructability of the project, and that it meets the "self-funded" requirement, and level of detail needed for Honeywell to provide an energy savings guarantee for the duration of the payback period.

Council is now presented with the opportunity to move to Step 4: Program Implementation, finalize negotiations of implementation and guarantee contracts, and secure the financing required to capitalize the project.

About the EPC Phase 1 Proposed Implementation

The proposed improvements would include:

- replacing a number of the outdated assets in the City's portfolio,
- address some deferred maintenance, and
- enable a modernized building portfolio that leverages best practices while depending less on fossil fuels.

Replacing and installing modern equipment will improve heating and cooling to improve user and staff experience and comfort; as well as being able to manage and reduce the building energy use and costs. The EPC Phase 1 includes the following facilities and energy efficiency measures:

Facility	Lighting LED	Fuel Switching (full or partial)	Recommissioning Building Systems	Continuous Commissioning Tool	Expand Controls	Air Infiltration Mitigation	Heat Recovery in MUA Units
Works Depot	x	x	x	x		x	
City Hall	x		x			x	
City Hall Annex	x		x			x	
245 Freshwater Rd	x	x*	x		x	x	
Animal Shelter	x	x	x			x	
Central Fire Station	x		x			x	
West End Fire Station	x		x				
Paradise Fire Station	x		x				
Buckmaster Rec. Centre	x	x				x	
Winsor Lake WTP	x		x			x	
Bay Bulls Big Pond	x					x	
Petty Harbour WTP	x						
Riverhead WWTP	x		x			x	x
Robin Hood Bay	x					x	
Mary Brown Centre & SCC	x					x	
Bowring Park Locker and Day Camp					x		

*Note: this measure is dependent on confirmation from an additional grant application to FCM Net-Zero Pathways Capital + Grant program.

This EPC is made up of selected, shortlisted measures from a lengthy list of opportunities across the portfolio to meet the performance requirements (payback of 15 years or less) set for Phase 1 of the EPC. EPC Phase 1, now ready for implementation, will provide a major improvements and benefits to the City operations:

- \$511,263 in energy and maintenance savings per year for the City, which will be leveraged to pay for the City's Infrastructure improvement costs;
- Electrification of these facilities will reduce 346,667 L of oil used for heating (equivalent to about 124 homes), while adding only 185 kW of electricity use (equivalent to about 26 homes).
- Reduce the City's greenhouse gas emissions by 1,118 tonnes CO₂et
 - This is a 11% reduction of Corporate GHG emission (2018 baseline); or
 - 1/4 of the City's 2030 Corporate commitment of reducing its emissions by 40% from the 2018 baseline;
 - With this project, the provincial efforts to implement a low-carbon electricity grid, and improved new city buildings, the City may be on track to achieve over 70% of its 2030 target before 2025.

Financials

The proposed EPC is a “self-funded” project that is designed to be 100% paid-back by the guaranteed savings within a 15 year term. Therefore, the proposed project has been developed to be cost-neutral to the City (i.e., all capital expenses, construction, and financing costs are paid back within the targeted payback period by the energy and contracted operating savings; no labour costs to the City are included in the saving calculations), and this will be measured, verified, and guaranteed by Honeywell for the duration of the contract. Any overachievement of savings and any savings made after the capital investment is recovered go to the City. Any overachievement of savings are for the City’s benefit only (not shared).

The City and Honeywell collaborated to leverage relevant grants available to the City during the EPC Program development. The following structure is what is confirmed and expected to exist to support the proposed program.

Source	Type	Amount
Climate Change Challenge Fund Grant (CCCCF)	Grant	\$3,110,577 (awarded)
City Hall Energy Audit 2021 Capital	Previously Allocated Capital	\$100,000 (approved)
TakeCHARGE Audit and Feasibility Grants	Grant	\$144,000 (awarded)
FCM Feasibility Study Grant	Grant	\$200,000 (submitted)
TakeCHARGE retrofit rebates Grants	Grant	\$116,000 (TBC)
Sub-total Grants:		\$3,670,428
Total Project Cost: (not including 245 Freshwater Fuel Switching)		\$9,990,664
St. John’s Capital:		\$6,320,236

FCM Pathway to Net-Zero Capital + Grant Application

To capture the full proposed scope and secure the City’s financing requirement it is possible to apply to the “FCM Pathway to Net-Zero Capital + Grant” which is a Federation of Canadian Municipalities (FCM) program that may consider capitalizing all or a portion of the EPC scope for the City. However, FCM decisions can take 3 to 6 months and require an application with the level of detail that we have arrived to now.

The Pathway to Net-Zero Capital program provides competitive interest rates for capital through FCM, as well a grant of (25%) from the total capital requested (e.g., \$2.2M grant on a \$8.9M capital request).

It is proposed that Council approves staff to apply for the capital needed to implement the full scope outlined before, while maintaining the payback period below 15 years payback.

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FCM Feasibility Study Grant	Grant	\$200,000 (submitted)
TakeCHARGE retrofit rebates Grants	Grant	\$116,000 (TBC)
FCM Pathway to Net-Zero	Grant	\$2,220,544 (TBC)
Sub-total Grants:		\$5,890,971
Total Project Cost: (including 245 Freshwater Fuel Switching)		\$12,552,601
St. John's Capital (through FCM Pathway to Net-Zero Capital program):		\$6,661,630

Recommendations

Staff recommend that:

- Council approves staff to submit a capital (w/ Grant) application to FCM for their Pathway to Net-Zero Capital & Grant Program (knowing that decisions on proposals to FCM may take up to 6 months).
- That Council proceeds with the assumption the Project will require the City to capitalize up to \$6,661,630 which will be repaid 100% from savings guaranteed through the EPC.
- Council directs staff to not delay implementation until FCM provides a decision.
 - The main grant for this project is the CCCC grant and it has a time-limited implementation period, so it is important to commence implementation.
 - Secondly, the pricing for material continues to go up and the pricing for the program proposed (with guarantee) can only held until year-end.
 - Under the existing grants arrangement we have a \$9.9M project that would be paid back fully through energy savings over the specified term of the program (15 years). If we are retroactively awarded the FCM capital grant it will only improve the outcomes of the EPC.

Key Considerations/Implications:

1. Budget/Financial Implications: for the City to capitalize up to \$6,285,423 to cover its portion of the funds. Financing costs will be off set in their entirety by energy savings in the operating budget on an annual basis.
2. Partners or Other Stakeholders: Corporate Energy Team, Utilities.
3. Alignment with Strategic Directions/Adopted Plans: An Effective City, A Sustainable City. Climate Emergency Declaration. Climate Change Corporate GHG Reduction Targets (30% and stretch target of 40% by 2030 from 2018).
4. Legal or Policy Implications: Legal departments and procurement have been involved in the review of the energy performance contract.
5. Privacy Implications: N/A
6. Engagement and Communications Considerations: N/A
7. Human Resource Implications: The Sustainability Coordinator will lead the implementation process and engage the Corporate Energy Team, relevant facility occupants, as well as legal, and finance and administration services as implementation proceeds.
8. Procurement Implications: Procurement was conducted in accordance with City policy and the implementation of the project is captured within the Energy Performance Contract competitive RFP process.
9. Information Technology Implications: Information systems will be engaged to ensure specifications meet technology requirements within the City's operations.
10. Other Implications: During the 18 month total construction period coordination will be ongoing with relevant departments to minimize disruption to operations.

Recommendation:

That Council directs staff to enter the implementation phase of the Energy Performance Contract Phase 1 Program, and that staff be authorized to establish the financing mechanism necessary for the City's portion of program costs up to \$6,661,630.

That Council directs staff to submit a Capital and Grant proposal to FCM to support the implementation phase of the Energy Performance Contract.

Prepared by: Edmundo Fausto, Sustainability Coordinator

Approved by: