

## REPORT

### Council

**Meeting Date: September 20, 2022**

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**FROM:** Facilities and Construction Management Department

**DATE:** September 13, 2022

**SUBJECT:** **Capital Funding Request for Solar Photovoltaic (PV) Installation at Oakville Trafalgar Community Centre**

**WARD:** Town-wide Page 1

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**RECOMMENDATION:**

1. That the staff report dated September 13, 2022, entitled *Capital Funding Request for Solar Photovoltaic (PV) Installation at Oakville Trafalgar Community Centre* from the Facilities and Construction Management Department, be received.
2. That Council approve Option 1 as outlined in the report for implementation.
3. That a capital project be created for Solar PV at Oakville Trafalgar Community Centre in the amount of \$1,490,000 to be funded from federal grants (\$1,006,490) and capital reserve (\$483,510).
4. That staff be authorized to execute the Transfer Payment Agreement with the Government of Canada in accordance with By-law 2013-057.
5. That Council approve staff to amend the agreement signed with Oakville Enterprises Corporation in order to transition to a traditional invoicing arrangement for the implementation of the full scope of the solar PV system at OTCC.

**KEY FACTS:**

The following are key points for consideration with respect to this Capital Request:

- As part of the Town's efforts to reduce our greenhouse gas (GHG) emissions in alignment with our Net Zero target for 2050, the Oakville Trafalgar Community Centre (OTCC) facility was designed with a geoexchange system to provide heating and cooling without the need for natural gas.

- By spring 2021, and in order to offset the use of electricity for the geoexchange system, a solar PV system at both OTCC roof (Phase 1) and the parking garage (Phase 2) was designed to cover the electricity for the entire year. Due to budgetary constraints at the time of implementation, only one half of the proposed system (Phase 1) was designed in a partnership with Oakville Enterprises Corporation (OEC), who was to charge the town a monthly fee.
- During the summer and fall of 2021, staff in Facilities and Construction Management, in collaboration with staff from Recreation and Culture, secured a grant from the Government of Canada. This federal program has funded projects that helped reduce GHG emissions in community buildings throughout Canada, and capped the grant funding at 80% of total expected project costs.
- In December of 2021 - using estimated costs for the full scope of the project, the federal government approved in principle \$1,006,490 to cover up to 80% of the project costs for the solar PV system at OTCC. OEC has provided an updated budget for the full scope of the project at \$1,490,000, leaving a difference of \$483,510 which would be paid through capital funds.
- To leverage this funding opportunity, staff are requesting the creation of a new Solar PV project with funding from the capital reserve.

**BACKGROUND:**

OTCC was designed with the goal of improving building energy efficiency and longer term environmental sustainability. It is the Town's first facility with a large-scale geoexchange system, which provides heating and cooling year round without the use of natural gas. In order to offset electricity costs of running this system, a large scale solar PV system was designed to provide electricity throughout the year and reduce the need of grid electricity for the facility. The solar PV system was designed in two stages: the first for the rooftop of the OTCC building and the second for the rooftop of the parking garage located in the same site.

Due to budget constraints, only the first half of the project (OTCC rooftop) was designed and installed. An agreement was signed with OEC to implement the system and pay for it over the next 10 years. This agreement established a lease-to-own arrangement for the OTCC solar PV project where the Town would pay a monthly fee for the project over the next 10 years, at which point the Town would become the sole owner of the system. OEC was tasked with designing, constructing and maintaining the solar PV system.

After the agreement was signed, an application was made to a Government of Canada program and, by December 2021, an approval in principle was received to cover up to \$1,006,490 for the total cost of the project, including both stages. This

grant will help the town complete the full scope of the project and start generating a larger amount of electricity, which will then offset the costs of operating the geexchange system. The town's cost per kwh for OTCC will be greatly reduced.

OTCC is estimated to use 1.4 million kWh of electricity on an annual basis, which translates to \$240,000 in annual operational costs. The completion of this project will help reduce annual electricity costs by \$113,000, or a 47% reduction. Although not directly contributing to reduction in carbon emissions, the solar PV project is helping the facility run the geexchange system, which has reduced carbon emissions by more than 90% as compared to a traditional facility.

One of the conditions of the grant is that the town has fully paid for the equipment by the grant deadline. As the town currently has a lease arrangement with OEC over the next 10 years, this would not satisfy the conditions. As a result, FCM staff have discussed the situation with OEC. OEC is willing to amend the agreement and invoice the town directly for the costs. Instead of making payments of approximately \$100,000 over the next 10 years and a balloon payment on year 10 of \$495,000, a present value purchase for the equipment of \$730,000 can be made.

The installation of phase 1 commenced in June 2022 and is scheduled to be completed and operational in early September. The second phase of this project is in the building permit process and, assuming Council approves the creation of the project and funding, will have an estimated start date of construction for September 2022 and completion before November 2022. The full scope of the project would need to be completed before March 31, 2023, as per the stipulations of the agreement with the GICB program.

### **COMMENT/OPTIONS:**

Staff are recommending that Council approve the creation of a capital project to pay for phase 2 of the solar PV project. This portion of the project will cost \$760,000 and will be financed by \$513,310 in Government of Canada grant funding and \$246,690 in funding from the town's capital reserve.

In addition to the parking garage phase, the town has two options for financing phase 1 of the solar PV project:

**Option 1:** Amend the agreement with OEC and move to a traditional invoicing project in order to take advantage of the external funding. This will use \$493,180 in grant funding and will require \$236,820 in funding from the town's capital reserve but will save the town \$1,293,485 in operational savings over the next 10 years.

**Option 2:** continue with the current signed agreement, where the total cost is \$1,530,305 and the Town has agreed to pay the following annual payments over the next 10 years.

Year 1	104,013
Year 2	106,614
Year 3	109,279
Year 4	112,011
Year 5	114,811
Year 6	117,682
Year 7	120,624
Year 8	123,639
Year 9	126,730
Year 10	494,898
<b>TOTAL</b>	<b>1,530,305</b>

Staff recommend that Option 1 be chosen as this provides the best overall financial position to the town.

Should Council approve the capital funding for both phases, the total request would be as follows:

	Internal funding required	External funding received	TOTAL
Phase 1	\$236,820	\$493,180	\$730,000
Phase 2	\$246,690	\$513,310	\$760,000
<b>TOTAL</b>	<b>\$483,510</b>	<b>\$1,006,490</b>	<b>\$1,490,000</b>

**CONSIDERATIONS:**

**(A) PUBLIC**

The Town of Oakville is one of the major partners for the Community Energy Plan, and is seen as one of the leaders in implementing projects and initiatives that can help the greater community reach its goals. The introduction of the solar PV system at OTCC will continue to support our position as a leader while showcasing the variety of activities the Town is taking

**(B) FINANCIAL**

Leveraging grant funding for capital projects contributes to fiscal sustainability. The recommendations within this report are in accordance with the Financial Control Policy.

**(C) IMPACT ON OTHER DEPARTMENTS & USERS**

Staff from Recreation and Culture have been involved in this project from the beginning, and work will be coordinated through them. The installation of the solar PV system should not affect any community members using the facilities

**(D) CORPORATE STRATEGIC GOALS**

This report addresses the corporate strategic goal(s) to:

- Livability: the geexchange system p a reliable source of heating and cooling year round. Using a solar PV system allows to run this system while greatly reducing electricity costs. These systems help ensure that our facilities continue to be safe to visit and use, while offering appealing designs and appropriate indoor environments.
- Environment: energy use and carbon emissions have a direct impact on the environment, and are considered a strategic priority for the corporation. The combination of the solar PV system and the geexchange system can help bring OTCC down to a near Net Zero carbon performance, in alignment with our 2050 targets.

**(E) CLIMATE CHANGE/ACTION**

Energy use and carbon emissions reductions have a direct effect on our climate, as they are the main drivers for climate change mitigation. By doubling down our efforts, the Town would be addressing climate change mitigation through its corporate activities.

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