



Corporation of the Township of Brock

Staff Report to the Mayor and Members of Council

From: Fernando Lamanna
Position: Clerk & Deputy CAO
Title / Subject: Climate Change Workplan Update & Review
Date of Report: November 2, 2023
Date of Meeting: November 13, 2023
Report No: 2023-CLIM-001

1.0 Issue / Origin

This information report is intended to provide an update on Climate Change action plans undertaken by Brock Township as well as looking at future objectives.

2.0 Background

The Township of Brock enacted a Climate Emergency Declaration on August 23, 2021:

BE IT THEREFORE RESOLVED THAT the Township of Brock officially declare a climate emergency for the purpose of naming and deepening our commitment to the protection of our economy, ecosystems, and communities from the impacts of climate change; and,

THAT the Township of Brock officially declare a climate emergency for the purpose of expressing our commitment to reduce GHG emissions across the whole Township, both within the Township's control and those who consider Brock to be their community; and,

THAT projects that will help achieve GHG reductions be considered a priority during budget discussions; and, THAT projects that will help achieve GHG reductions be considered a priority during budget discussions; and,

THAT the Township makes sustainability and climate action a strategic lens through which we view and evaluate all Brock decisions through such activities as the creation of the new strategic plan for the incoming Council in 2022; and,

THAT sustainability and climate action be considered as part of the definition of a “healthy community” and form a fundamental premise for policy directions in the updated Official Plan review study process currently taking place; and,

THAT staff ensure the Township of Brock, Scugog and Uxbridge Integrated Community Sustainability Plan is utilized as a platform for public engagement and community collaboration to respond to this emergency and if possible that the plan be refreshed; and,

THAT meaningful climate action build on the support of the community and in respect of Indigenous Peoples’ human rights and that Traditional Ecological Knowledge be applied where possible; and,

THAT the Township continues to demonstrate leadership and commitment to economic, social and environmental sustainability.

In addition, Council has also supported through resolution, the call from Lake Simcoe watershed municipalities, for federal action as it relates to The Lake Simcoe Clean-Up Fund.

3.0 Analysis

Climate change is a global reality that all levels of government should contribute to improvements, in any large or small scale. The Township of Brock continues to participate and research in a variety of objectives aimed at addressing climate change. To assist Brock in achieving a number of the climate change workplan objectives, the Region of Durham has graciously donated a limited portion of staff resource time. In this regard, Melanie Kawalec, Climate Change Coordinator has been working closely with Township staff and is a contributor to the information in this report.

Corporate Climate Action Plan

A Corporate Climate Action Plan (CCAP) for Brock Township is being developed that will serve as an update report for the North Durham Integrated Community Sustainability Plan, dated December 2010. This report will update the corporate data, which was enclosed within the Integrated Community Sustainability Plan. Focus will include updating the greenhouse gas emissions reduction target to align with Regional and Federal targets, as well as updating the greenhouse gas inventory to illustrate where greenhouse gas emissions are generated across operations, and trend greenhouse gas emission reductions. This report will be reviewed and vetted by Township staff prior to submission to Township Council in Q1 2024.

Energy Conservation and Demand Management (CDM) Plan

As required by Ontario Regulation 507/18, the Electricity Act, municipalities are required to develop and implement an Energy CDM Plan, to be reviewed and updated every 5 years. The previous Township of Brock’s Energy CDM Plan was from 2019 to 2023. The updated Energy CDM Plan is scheduled to be revised to reflect key initiatives implemented, identify future actions for energy conservation, and associated reductions in greenhouse gas emissions, as well as

forecast current and proposed actions for 2024 to 2028. This revised plan is being developed and will be vetted by Township staff and submitted to Council in Q2 2024, as it must be approved by Council, posted to the Township of Brock website, and submitted to the Ministry of Energy by July 1, 2024.

Energy Consumption and GHG Emission Report

This is an annual reporting requirement with the Ministry of Energy. Data from Township utility bills is input into an electronic platform called LAS-Energy Planning Tool and then submitted to the Ministry each July.

Table 1 and Table 2 below show the annual greenhouse gas emissions and the annual energy consumption from 2013 to 2022. You can clearly see on the graphs the impact of COVID-19 in reduction in energy consumption in 2020, 2021, and 2022.

Table 1: Annual GHG Emissions (tonnes) from 2013 to 2022

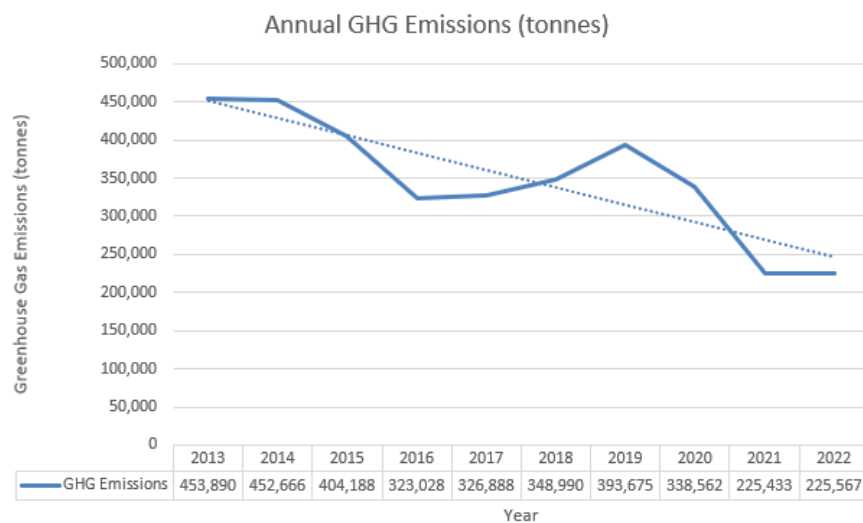
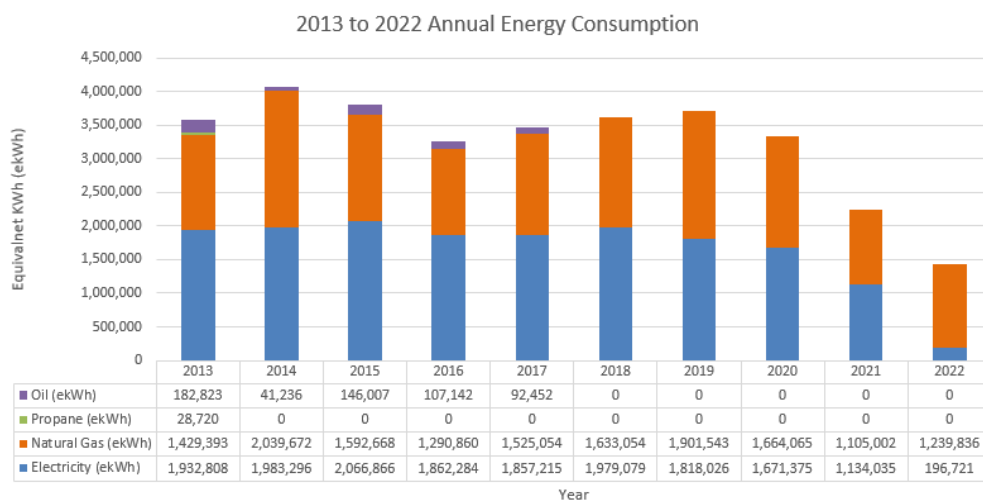


Table 2: Annual Energy Consumption



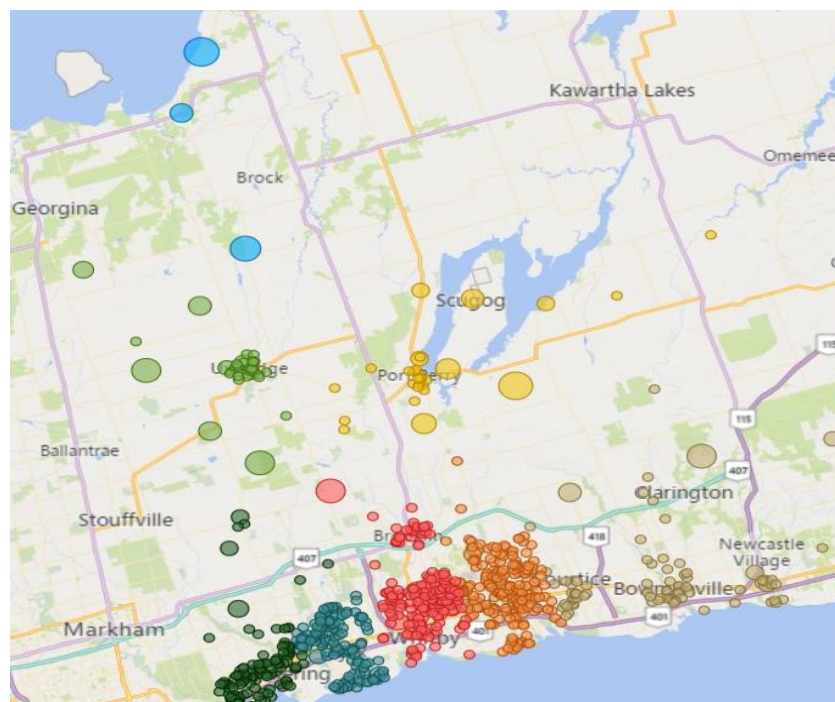
Durham Greener Homes (DGH)

The [Durham Greener Homes Program](#) was designed to provide the tools, resources, education, and incentives to help residents take action to reduce their home energy consumption, costs and GHG emissions. Through a competitive procurement process the Region retained Windfall Ecology Centre (Windfall), to act as the delivery agent on behalf of the Region. Windfall provides a comprehensive “one-stop shop” solution featuring:

- a) access to a [home energy coach](#) to support homeowners through the home energy retrofit process, including the completion of a home energy audit, support with choosing a contractor, help identifying available rebates and facilitating access to third-party financing services;
- b) an [interactive website](#) with home energy efficiency tools and resources, as well as a participant web portal to facilitate the tracking of a homeowner’s retrofit projects;
- c) additional [rebate incentives](#) above what is currently available through government and utility programs to enable deeper energy retrofits; and
- d) innovative third-party [financing partnerships](#) through a loan loss reserve that enables access to financing services for eligible participants. This is truly innovative, being the first and only one of its kind in Canada to provide this third-party financing service.

The following are results for the greater Durham Region area, from a year and a half into the four-year program, noting that 26 households in Brock are registered with DGH as of Oct 16, 2023.

Map 1: Cluster map of DGH Participants



Tables 3, 4 & 5 showcase the total DGH participants since launch on April 28th, 2022, the breakdown by municipality, and the type of deep energy retrofits completed through DGH.

| Year | Applicants |
|--------------|------------|
| 2022 | 321 |
| 2023 | 562 |
| Total | 883 |

Table 3:

| Municipality | Count of Contact |
|--------------|------------------|
| Whitby | 201 |
| Oshawa | 182 |
| Ajax | 141 |
| Pickering | 119 |
| Clarington | 99 |
| Uxbridge | 62 |
| Scugog | 54 |
| Brock | 26 |

Table 4:

Table 5:

| Retrofit Upgrades Completed | Number of Completed Retrofit Upgrades |
|-----------------------------|---------------------------------------|
| Air Source Heat Pump | 16 |
| Attic Insulation | 8 |
| Solar Panels | 6 |
| Windows | 6 |
| Air Sealing | 5 |
| Hot Water Heater | 3 |
| Heat Pump Hot Water Heater | 2 |
| Battery Storage | 1 |
| Doors | 1 |
| Exposed Floor Insulation | 1 |
| Foundation Insulation | 1 |
| Furnace | 1 |
| Ground Source Heat Pump | 1 |

Electric Vehicle Chargers and Electric Vehicles

The Township of Brock has been approved for a federal grant through Ministry of Natural Resources - Zero Emission Vehicle Infrastructure Program Non-Repayable Contribution Agreement (NRCan ZEVIP) for a total of \$20,000.

The NRCan ZEVIP program approved two (2) level 2 chargers for the round 3 location (Beaverton) and the round 4 location (Sunderland).

ZEVIP round 3 must be completed by November 30, 2024, and staff are waiting for Durham Region procurement to award the RFP to the successful proponent which Brock is party to the scope of work via a piggyback clause. The goal is to install the level 2 chargers at the Beaverton Fire Hall along the south side of the building and connecting to the firehall electrical panel by end of 2023.

ZEVIP round 4 must be completed by November 30, 2025, and the intent is to install the level 2 chargers at the Sunderland arena. With the intended renovation project at the Sunderland arena, staff will hold off on installing these chargers until closer to the end or near the completion of the arena project.

As of late October, a new funding opportunity opened through EV ChargeON, a provincial program that provides funding for the development and enhancement of public electric vehicle chargers in Ontario communities outside of major cities and in Indigenous communities. This new funding is open to all businesses, not-for-profit corporations, municipalities, and Indigenous communities. Staff attended a virtual information session on this new grant opportunity and were made aware that this funding is stackable with other grants such as the NRCan ZEVIP. There are certain restrictions such as the minimum project requirement for level 2 chargers, must have a minimum of 4 ports, the location must be on or near high traffic corridors and easily accessible to the public. Municipalities successful in this new grant are eligible for up to 75% of capital costs. The deadline for this new funding stream is January 31, 2024, and municipalities have 2 years to complete the project from the time the grant is awarded.

In this regard, staff are recommending that we proceed to apply for this new grant and include the ZEVIP round 4 program for Sunderland Arena on the application as a stackable option and increase the number of chargers at that location to 4 in total. Additionally, staff will review the application guidelines to also include the possibility of adding EV chargers to the Sunderland firehall and the Beaverton Community Centre. And additional budget required for this new grant can be drawn down from the allocated to NRCan ZEVIP program as well as an appropriate reserve.

This summer the Township of Brock had taken one small step in its initiative to becoming a greener community by introducing the first electric ice resurfacing machine to its fleet of vehicles and equipment. The state-of-the-art vehicle is a significant first step for Brock Township that will reduce carbon emissions. Another electric ice resurfacing machine is on order and will be added to our fleet in 2024.



Battery operated tools, such as trimmers, blowers and pole saws have been purchased and added to the existing inventory. Other electric vehicles and equipment will be evaluated when new or replacement vehicles are presented during each annual budget processes.

Tree Planting, Naturalization Areas & Invasive Species

Over the past two years the Township has played a role in community tree/shrub planting events in 3 municipally owned properties:

- Albert Street Park and open space in Sunderland in collaboration with LSRCA
- Old Mill Park in Beaverton in collaboration with LSRCA, Holy Family C.S., Beaverton P.S. and the Beaverton Lions
- MacLeod Park in collaboration with LSRCA and the Cannington Horticultural Society.

Other private property tree planting initiatives supported include [LEAF](#) and [Durham Trees](#).

Naturalization or rewilding of municipally owned open areas will be considered in coming budget years as there is a need to work with local conservation authorities to ensure that native seeds are used for the subject lands. No-Mow-May continues as an alternative, however, 2023 saw fewer participating households.

Township of Brock underwent an [Invasive Plant Species Report](#) of which the report identified that the most common invasive plant species are Common Buckthorn, Dog Strangling Vine, Wild Parsnip, Phragmites, Garlic Mustard, and Tatarian Honeysuckle, each having negative impacts to human life, wildlife and the natural environment. As part of its commitment to combat the invasive plant species, Council had dedicated \$10,000 per year to help control the identified species. Public Works staff have begun removal of some invasive plant species via ditching, however, have run into some permitting challenges with LSRCA. Staff will continue to work with LSRCA regarding this issue and will continue on other measures (as identified in the report) on removing invasive plant species.

Municipal Infrastructure & Municipal Policies

Township facilities and other municipal infrastructure continue to implement climate change action plan initiatives when fixtures or equipment require replacement and the new greener technology is cost permissive. The Township has completed new LED lighting fixture replacement in the Municipal Administration Building. Cannington and Beaverton Libraries LED lighting replacements are being proposed in the 2024 budget. Other facility lighting, including sport fields, are being replaced with LED fixtures when fixtures are being replaced. Brock's LED streetlight conversion currently sits at just over 20%.

In September 2022, Council endorsed a pilot program with Elexicon - [REALice](#). The technology allows the opportunity to make ice with reduced costs and lower CO2 emissions. This equipment was installed in the Foster Hewitt Memorial Arena for the 2023/2024 ice season and the impacts of the pilot program will be reported separately.

Other large capital projects such as the Sunderland arena renovation project will incorporate green technology such as, but not limited to, reclaiming heat from ice plants to heat specific areas in the newly renovated arena, LED lighting, on-demand hot water, etc. Any green technology will be subject to the scope of the project and overall costs.

Development Services will continue to promote regional programs and pushing “green” initiatives and a tree compensation policy for new developments.

4.0 Related Policies / Procedures

No related policies or procedures are impacted by this report.

5.0 Financial / Budget Assessment

There may be a budget impact later in 2024, but more likely in 2025 should the Township be successful in receiving grant approval through the EV ChargeON. As a rough estimate, staff are anticipating that a Level 2 EV charger plus installation is approximately \$10,000 per charger.

With up to 75% of the capital costs covered through the grant, Brock may require up to \$10,000 if the application included 4 – Level 2 chargers. As this funding is likely to be withdrawn from a reserve, staff recommend that a separate report be presented should the Township be successful with the grant application.

6.0 Climate Change Impacts

This report highlights a number of the climate change initiatives already undertaken by Brock as well as outlining future initiatives.

7.0 Communications

This report is shared on a public agenda and some of the climate change initiatives outlined within this report have had dedicated communications via all township mediums.

Communications will continue to push out the various climate change programs and information.

8.0 Conclusion

Climate change is an important objective for all levels of government, to lead by example and encourage the residents of Brock to also take action

9.0 Recommendation

BE IT RESOLVED THAT report 2023-CLIM-001 entitled “Climate Change Workplan Update and Review”, be received for information.