

CITY OF ORILLIA

TO: Special Council – January 28, 2022
FROM: Environment and Infrastructure Services Department
DATE: January 21, 2022
REPORT NO: EIS-22-01
SUBJECT: **Climate Change Action Plan – Project Update #2**

Recommended Motion

THAT Report No. EIS-22-01 be received as information.

Purpose

The purpose of this report is to provide a further update to Members of Council regarding the Climate Change Action Plan capital project. In October 2021 the first update report to Members of Council occurred and focused on the work completed on the Corporate Climate Change Action Plan (CAP). The focus of Report No. EIS-22-01 is to summarize the work completed to date and review the draft priority low-carbon actions generated as part of the Community Climate Change Action Plan (CCAP). An overview of the findings to date will be presented, in addition to an analysis of the low-carbon actions and how they would contribute to the community's low-carbon future.

This report does not seek Council direction currently. Instead, the opportunity will be provided to review the information in a fulsome manner and bring forward contemplated options for Council direction at a subsequent meeting. All information is being presented in draft form and input and discussions will assist in refining the final plan. Similarly, the CAP was brought before Council for information and discussion in October 2021. Together these Plans, if adopted, will serve to tackle the ambitious challenges of climate change at the local level.

Background & Key Facts

The following are key terms for understanding when reviewing this report:

- “Business as Usual (BAU)” – A reference scenario of the future emissions and climate impacts of activities (City or community) based on assumptions of current energy usage and municipal, provincial, and federal policies extending to the year 2050. This scenario provides a baseline of outcomes should no climate actions be taken.
- “Carbon Budget” – The maximum amount of greenhouse gases that can be emitted worldwide without increasing the global average temperature more than 1.5° Celsius. In the context of the City's reduction targets, the City would utilize a

carbon budget model to assign the maximum GHG emissions that can be emitted each year (or other cycle/timeframe) to reach the approved reduction target.

- “Community Climate Action Plan (CCAP)” – An action plan to reduce the greenhouse gas emissions of the community of Orillia developed through consultation with the public and modeling emissions scenarios.
- “Corporate Climate Action Plan (CAP)” – An action plan to reduce the greenhouse gas emissions of the Corporation of the City of Orillia released directly through municipal operations and activities.
- “GHG” – Greenhouse gases (GHG) trap heat close to Earth's surface through the greenhouse effect. Small changes in the atmospheric concentrations of these gases lead to significant changes in Earth's temperature and climate. The major greenhouse gases are carbon dioxide (CO₂), methane (CH₄) and nitrous oxide (N₂O). New GHGs are predominantly released through the human activity of burning fossil fuels.
- “IPCC” - The Intergovernmental Panel on Climate Change (IPCC) is the United Nations body and foremost expert for assessing the science related to human-induced climate change. The panel is comprised of thousands of scientists who review and compile scientific findings into “Assessment Reports” for policymakers and the general public.
- “Marginal Abatement Cost” (MAC) – The cost of reducing one additional unit of pollution (measured in GHG emissions). As the quantity of GHG emissions approaches zero, costs tend to rise as it becomes increasingly expensive to reduce emissions. Marginal abatement costs are frequently shown on a Marginal Abatement Cost Curve to indicate the investment pathway to reach Net Zero Emissions.
- “Marginal Abatement Cost Curve” (MACC) – A Marginal Abatement Cost Curve is a graph that presents carbon emissions abatement options relative to a baseline (BAU) scenario. The graph permits a visualization of various mitigation options/actions organized by a single, understandable metric: the economic cost of emissions abatement. MACC curves are broken into discrete ‘blocks. Each block represents an individual or set of similar carbon abatement measures.
- “Net Zero” - Net Zero Emissions refers to releasing either no greenhouse gas emissions and/or offsetting emissions (via GHG-storing initiatives) such that the resulting effect is no further GHGs are released into the atmosphere. Net Zero emissions is a key concept in preventing extreme impacts and damages from climate change.
- “CO₂” – Carbon dioxide (CO₂) is the most common GHG emitted by human activity. It makes up the largest quantity of GHGs and has the single largest impact on global warming. The terms “CO₂” or “carbon” are commonly used as shorthand expressions for all GHGs. However, the more accurate term is CO₂e.
- “CO₂e” – “Carbon dioxide equivalent” or “CO₂e” is the accurate term for quantifying different greenhouse gases (GHGs) into a common unit. As GHGs such as carbon dioxide (CO₂), methane (CH₄) and nitrous oxide (N₂O) vary by quantity and warming impact in the atmosphere, the term ‘CO₂e’ distills the total warming impact of all GHGs into a single quantifiable unit. The quantity of CO₂e

is commonly expressed in metric weight: grams (g), kilograms (kg), and/or tonnes (t).

- “Science-Based Target” – A GHG reduction target that aligns with the global agreement known as the [United Nations Framework Convention on Climate Change’s \(UNFCCC\) Paris Agreement](#) to limit average global warming to 1.5 degrees Celsius above pre-industrial times. Limiting this warming will be achieved only through drastically reducing GHG emissions to carbon neutral by 2050, as globally we are already at approximately 1.2 degrees warmer than the pre-industrial period. The importance of science-based targets to reduce climate change is proven through the work of thousands of scientists worldwide.
- “Evidence-Based Target” – is a GHG reduction target that is designed to decarbonize as quickly as possible while taking into consideration the realities of the resources, operations, and technology available. It may not be as ambitious as a science-based target; however, it considers the most realistic implementation from the bottom up.
- “EUI” – Energy Use Intensity is a measure of a building’s total energy use as a function of its size, typically over the span of a year. The energy use includes electricity, natural gas, heating oil and other fuels. The common units of EUI are GJ/sqft or kWh/m², and generally a low EUI signifies good energy performance and a high EUI indicates room for improvement in energy efficiency.
- “RNG” – Renewable Natural Gas (RNG) is a low-carbon replacement for fossil fuel derived natural gas (whose main component is methane). RNG can be derived from various biogas sources such as municipal solid waste, digesters at wastewater treatment facilities, food production facilities, livestock excrement etc. and it can be used as a substitute for natural gas in many applications such as heating, electricity generation, or vehicle fuel.
- “REC” – A Renewable Energy Certificate is a legal instrument that certifies that the owner of the REC has the right to claim the associated environmental attributes of renewable energy that has been generated and delivered to the utility grid. One REC represents one megawatt-hour of renewable electricity and it can be sold on the open market as an energy commodity. RECs are commonly sold from renewable electricity generators to entities that release significant GHG emissions as a carbon credit to offset their emissions. RECs may also be sold to entities that are close to Net Zero and require RECs as a low carbon action to reach Net Zero.

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

- In April 2019, Council adopted the recommendation for the City to join the Federation of Canadian Municipalities (FCM) - Local Governments for Sustainability Partners for Climate Protection Program (PCP Program).
- Joining the PCP Program allowed the City to access resources and tested program guides to assist with developing Climate Change Action Plans. Leveraging the collective experiences and expertise of other partner municipalities helped accelerate the City’s progress towards climate action.
- Currently, over 400 Canadian municipalities are participating in the PCP Program, over 460 community and corporate emission reduction targets have been set

under the program and over 160 local climate change action plans have been implemented. Area municipalities in the Program include the City of Barrie, Township of Severn, County of Simcoe, and District Municipality of Muskoka.

- The City of Orillia’s Strategic Plan was adopted by Council on December 12, 2019. Through the Strategic Plan, “Quality of Life”, “Healthy Environment”, and “Sustainable Growth” were created as key pillars for strategic direction moving forward. Under Healthy Environment, 2.1, the desire to position Orillia as a leading municipality in addressing climate change was established.
- Through initial work on climate change action planning and baseline emission inventories, staff developed a strategy to progress through the PCP Program milestones and structure both a Corporate Climate Action Plan (CAP) and Community Climate Action Plan (CCAP) to map out the pathway to a low carbon future for both the City and greater community. The necessary funding to proceed with this strategy was approved by Council as part of the 2021 budget process, funded in the amount of \$120,000.
- The City retained Sustainability Solutions Group (SSG) in May 2021 to assist in developing both the CAP and CCAP.
- The project began in May 2021 and engaged the community through a Community Based Steering Committee (CBSC) and involved key staff through the City Staff Working Group.
- Broader public engagement – focused primarily on the Community Plan – was launched in September and provided opportunities for the public to participate in a comprehensive survey as well as a Virtual Open House.
- The Corporate Plan together with the Community Plan will form a comprehensive strategy for responding to climate change, titled “Orillia’s Climate Future”.
- The project timeline and progression to date is shown in Figure 1, below:

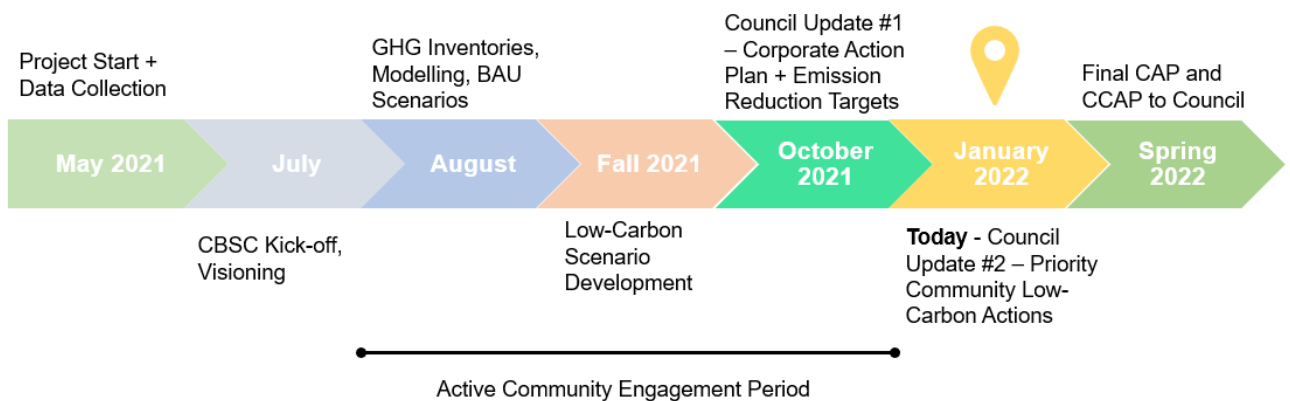


Figure 1: Climate Change Action Plan Project - Timeline

- Prior to development of the plans, the City moved forward with key projects to act locally on climate change. As part of the engagement and education components of the project underway, past initiatives undertaken by the City have been promoted. These initiatives include:
 - The upgrade of over 3,300 streetlights to LED fixtures in 2020, resulting in a financial savings of 40% and a 76% reduction in GHG emissions.

- Upgrade of lighting at City facilities to LED throughout 2020 – 2021.
- Environmentally sustainable building materials utilized as part of the Orillia Waterfront Centre construction and the Orillia Public Library's designation as a LEED Silver certified building with efficient energy and water features and other environmentally sustainable features.
- A total of 600 kilowatts of rooftop solar panel installations on two recreation facilities.
- More recently, as part of the 2022 budget process (in advance of the finalized plans), Council approved capital projects targeted at advancing the City's progress towards net-zero. These initiatives were informed by preliminary findings through the project and include:
 - GHG facility auditing program across several City facilities to establish a roadmap for deep building retrofits.
 - Fleet EV charging stations at the Municipal Operations Centre and City Centre.
 - Community Energy-Efficiency Financing Program – feasibility study. This project is contingent on grant funding, the application is in progress.
 - Solar PV installation at the Orillia Recreation Centre. This project is contingent on grant funding. The application has been submitted and is under review.
- All the initiatives discussed above will be captured as emission reductions under future climate action plans as they all occurred after the baseline year established for the City and community as a whole through the modelling component of the project.

Local Climate Action and Emission Reduction Targets

- To date, 2,050 jurisdictions in 35 countries have declared a climate emergency. In January 2021, a United Nations survey with 1.2 million respondents in 50 countries, the largest survey of public opinion on climate change ever conducted, found that 64% of people said that climate change was an emergency.
- Within Canada, at the time of this report, 517 municipalities have declared a climate emergency, including area municipalities the City of Barrie, Town of Gravenhurst, Town of Huntsville, and District Municipality of Muskoka.
- The Intergovernmental Panel for Climate Change (IPCC) released its 6th Assessment Report on August 7, 2021. The report provides an update on the current state of physical science-based climate change and addresses changes in climate and the role of human influence. Findings indicate that a rapid reduction of emissions is required by 2030 with a target of net zero prior to 2050 to prevent long-term ecological and climate breakdown. The plan indicates that global emissions must be reduced 49% by 2030 from baseline 2017 levels.
- A “science-based” reduction target is what is currently recognized as best practice in climate action planning. This target is designed to effectively align with the global agreement known as the United Nations Framework Convention on Climate Change's (UNFCCC) Paris Agreement to limit warming to 1.5° Celsius. Currently,

on a global level the earth is above 1.2° Celsius warmer than the pre-industrial period, making climate action urgent.

- Canada is a signatory to the Paris Agreement, an international climate change treaty signed in 2015.
- The difference between a “science-based target” and the term “evidence-based target” is tied to the framework produced by the [Science Based Targets Network in November 2020 to guide Cities towards science-based climate targets](#). This approach attributes an equitable distribution or “fair share” approach for target setting whereby high-emitting, high-GDP communities are to take more significant action in reductions compared to low-emitting, low-GDP communities. Although globally a 49% reduction in global emissions is required by 2030, high-emitting, high GDP communities are to take a greater part in contributing to this reduction as they contribute more emissions per capita.
- In early 2021 (prior to the release of the latest IPCC report) the Canadian government committed to reduce GHG emissions by 40 – 45% below 2005 levels by 2030 (previously 30% reduction by 2030). In addition, the price on carbon pollution will be set to increase by \$15 per tonne each year starting in 2023 through to 2030.
- In October 2021 FCM’s Big City Mayors’ Caucus declared support for the Cities Race to Zero Campaign. This campaign is aimed at encouraging businesses, municipalities, and all sectors to rally leadership and support to champion a resilient, zero carbon recovery.
- The United Nations Climate Change Conference (COP26) occurred October 31 – November 12, 2021. Takeaways from the conference included:
 - A joint declaration by China and the U.S. to work together on climate change.
 - Development of the Glasgow Climate Pact which establishes a commitment to “phase down” coal for coal reliant countries like India and China.
 - Of the world’s population, 85% are now blanketed by Net Zero targets.
- Table 1, below, has been prepared to illustrate an overview of Ontario-based municipal comparator emission reduction targets and has been updated to reflect the City of Toronto’s new target as of December 2021.
- It should be noted that while a municipal corporate target is commonly established, there are other approaches when it comes to community low-carbon scenarios. Working towards a modelled low-carbon scenario through establishing priority actions rather than a “specific target” was also revealed through the benchmarking.

Table 1 – Municipal Climate Change Action - Benchmarking				
Municipality	Commitment 2030	Commitment 2050	Benchmark Year	Target Adoption
Halton Hills	Net Zero	-	N/A	2019
Burlington	-	Net Zero (2040)	2016	2020
Whitby	-	-80%	2019	2021
Toronto	-65%	Net Zero (2040)	1990	2021
District of Muskoka	-50%	Net Zero	2018	2020
Hamilton	-	Net Zero	N/A	2019

Municipality	Commitment 2030	Commitment 2050	Benchmark Year	Target Adoption
Caledon	-36%	Net Zero	2016	2020
Guelph	-	Net Zero	N/A	2019
Aurora	-16% (2023)	-80%	2018	2021
Tiny Township	-6% (2028)	-	2015	2018
Vaughan	-22% (2031)	Not specified	2013	2019
Barrie ²	No target	-	-	-
Innisfil	No target	-	-	-
Town of Georgina	No target	-	-	-

Notes:

1. -XX% - refers to the percentage reduction compared to established benchmark year.
2. Barrie is in the process of developing corporate and community climate change action plans. In 2019 Barrie Council directed staff to create mitigation plans that would identify ways of reducing the City's carbon emissions with a goal of net-zero emissions by 2050.

Options & Analysis

Option 1 - Recommended

THAT Report No. EIS-22-01 be received as information.

Consistent with the purpose of the report, proposed priority low-carbon actions for the community will be reviewed for Council's information. A decision regarding the adoption of low-carbon actions and the corresponding emission reduction pathway will be presented at a future Council Committee meeting.

Business as Usual (BAU) Scenario - Overview

Understanding the Community's current emissions is the first step to move forward with an emission reduction pathway. The BAU scenario extrapolates from past emissions to model what emissions will look like in the future should a Climate Change Action Plan not be adopted. It is important to note that the BAU accounts for many different assumptions to govern the extrapolation of emissions (i.e., electric vehicle uptake) as well as generally reflecting trends envisioned by future Official Plan updates and land-use projections (i.e., improved building energy performance). However, the BAU is not able to definitively reflect emission changes that may result from unforeseen policy changes, etc.

As illustrated by Figure 2, if the Community does not set GHG emission reduction targets and continues to emit under a BAU scenario, the Community's emissions will continue to increase over time. Although a relatively small percentage of the community's total emissions (~1%) are produced directly by the City, the City is in a position with both direct and indirect control over emissions generated in the community itself. The share of community emissions in this context are estimated to be approximately 50% across Canada.

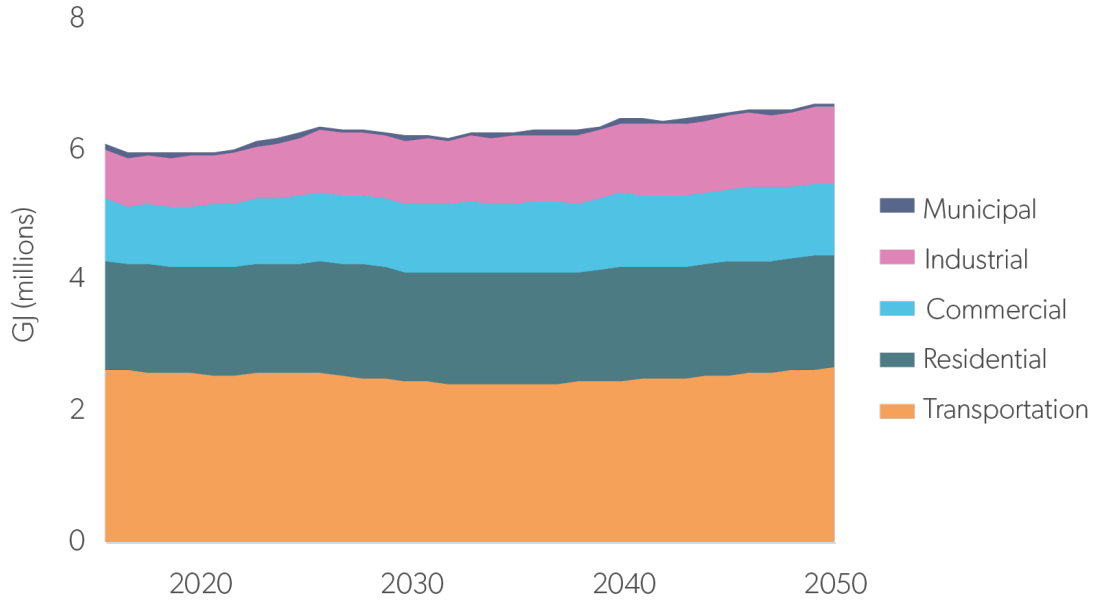


Figure 2: Presents baseline year (2016) community GHG emissions percentage by sector.

Emission Reduction Pathway – Low-Carbon Scenario

The “Low-Carbon Scenario” ultimately refers to the pathway that will lead the community from present-day emission levels to a decreased emission output in the future. The diagram presented as Figure 3 below demonstrates the respective emission reduction impact of implementing the proposed low-carbon actions. The current proposed strategic actions are further summarized in Table 2 below.

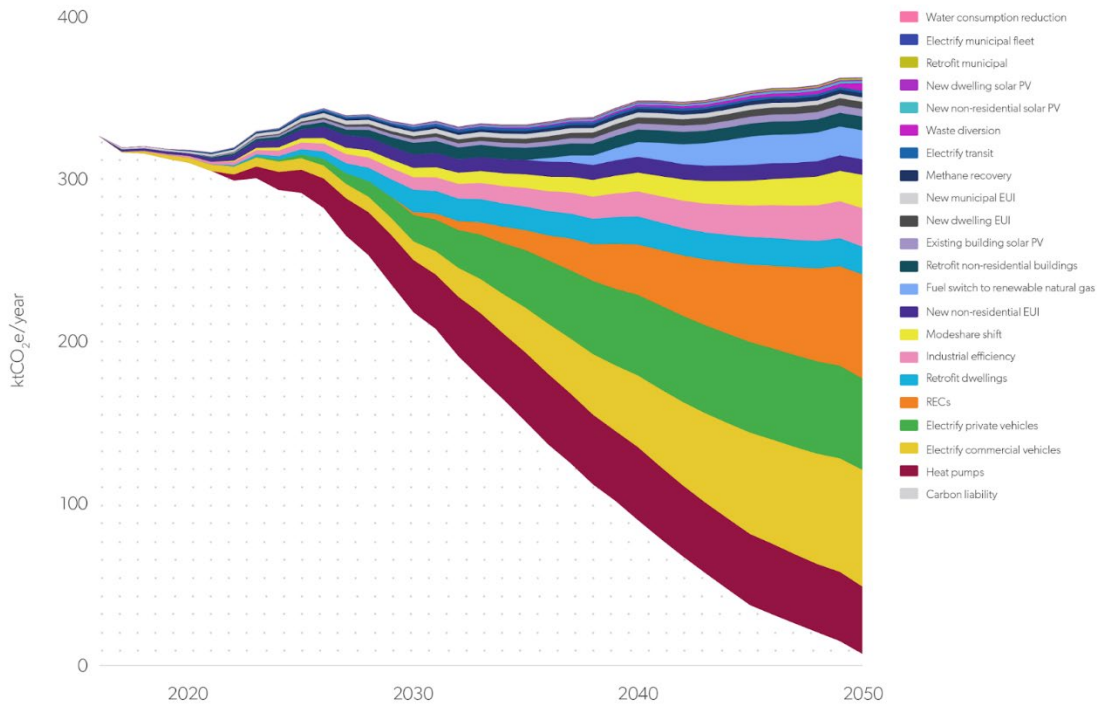


Figure 3: Draft Low-Carbon Community Scenario Diagram

Water Consumption Reduction	Fuel Switch to Renewable Natural Gas
Existing Building Solar Photovoltaic (PV)	Retrofit Dwellings
New Non-Residential Solar PV	Retrofit Non-Residential
New Municipal Energy Use Intensity	Heat Pumps
New Dwelling Solar PV	Retrofit Municipal Buildings
New Non-Residential Energy Use Intensity	Mode Share Shift
Electrify Private Vehicles	Methane Recovery
New Dwelling Energy Use Intensity	Renewable Energy Certificates
Waste Diversion	Industrial Efficiency
Electrify Commercial Vehicles	Electrify Transit
Electrify Municipal Fleet	Carbon Liability

The low-carbon actions are strategic level actions, and through the finalization of the CCAP will become more specific through a variety of mechanisms (i.e. projects, plans, strategies, standards). The City and the community will be required to work together to implement the actions. Best practice has shown that these actions and their specific implementation are best addressed as an iterative process. There are many exciting changes and developments in low-carbon planning and technologies, and these should continue to be assessed and implemented where practical.

To assist Members of Council in understanding how specific low-carbon actions have been set and implemented in other municipalities a brief summary has been prepared to assist discussions and questions.

Green Development Standards

Green Development Standards (GDS) target low-carbon new construction in the residential, commercial, and industrial sectors by outlining requirements for energy efficient buildings, proximity to transit, EV charging, tree canopy, green space, walkability, and availability of street amenities. Leading municipalities in Ontario include Toronto, Whitby, Halton Hills, Brampton, Richmond Hill, Markham, and Vaughan. More information about GDS from leading municipalities can be found in [this document](#) published by the Clean Air Partnership in 2021, “Green Development Standards: Approaches and Lessons Learned Thus Far”.

Certain municipalities such as Toronto and Vancouver are also implementing green standards for existing buildings by requiring building energy use benchmarking and providing best practices or standards for energy efficient retrofits. The table below showcases other new innovations in GDS that have/are being pursued.

Municipality (Population)	GDS Innovations	Year Committed	Reference
Vancouver (675,218)	(Upcoming) Standards for low carbon materials and low carbon construction practices in new buildings.	2022	Source
Halton Hills (61,161)	Version 3 of the GDS was published in June 2021 and applies to all new developments and major additions that submit a rezoning, subdivision, or site plan control application. Developments must demonstrate achievement of at least 20 points across five categories (Energy & Water, Ecology, Resiliency, Transportation, Innovation)	2021	Source
Toronto (2.93 million)	All new homes and buildings will be designed and built to be net-zero greenhouse gas emissions by 2030.	2019	Source

Part of a Green Development Standard is a requirement that new construction of residential, commercial, and industrial buildings be EV-ready with rough-ins and electric panel capacity to supply charging to electric vehicles. In fact, many local governments in the Vancouver area have mandated that 100% of new residential parking spaces feature an energized outlet capable of providing Level 2 EV charging – this includes the Cities of Vancouver, Richmond, Burnaby, North Vancouver, New Westminster, Port Moody, and [Surrey](#). Similarly, Toronto requires new buildings (commercial, industrial, MURBs) must have 25% of parking spaces with EV supply equipment. Halton Hills mentions in their GDS that EV parking and charging must be included as part of the Transportation Demand Management Plan submitted as part of the GDS requirements, and the quantity is in alignment with best practices following LEED standards for EV charging spots.

Active Transportation Strategies

Some municipalities have created dedicated active transportation budgets to further develop their active transportation infrastructure and encourage their community to steer away from fossil-fuel based transportation.

The City of Orillia adopted its initial Active Transportation Plan in 2012, and then its current Multi-modal Transportation Master Plan incorporated the AT Plan components so that it was fully integrated. The City's 10-Year Capital Forecast includes a full range of projects that help to implement the AT Plan (including on-street bike lanes, multi-use trails, sidewalks, etc.).

Below are examples of other municipalities that have dedicated budgets and/or dedicated AT strategies.

Active Transportation Budget			
Municipality (Population)	Budget Details	Year Committed	Reference
Essex County (181,530)	\$100,000 directed to the County Wide Active Transportation System (CWATS) for a total of \$4.9M to expand its network of trails, pathways, bike lanes and paved shoulders (10.8% of the total roads budget). The network will eventually span 800 km, linking all seven local municipalities. The entire roads construction budget is \$45.5M.	2022	Source
City of Toronto (2.93 million)	Creation of ActiveTO initiative during the COVID-19 pandemic to encourage residents to use active transportation for leisure and essential trips throughout the City. This includes closing major streets for AT use, permanently expanding the cycling network, and creating semi-permanent quiet streets for AT and to encourage physical distancing. Dedicated funding of \$73.3M to advance delivery of the cycling network plan over nine years, from 2022-2030.	2020	Source 1 Source 2
City of Mississauga (828,854)	\$9.4M for active transportation in 2022 budget.	2022	Source
City of Ottawa (994,837)	In 2022 budget, \$13.4M to enhance active transportation through programs like the Cycling and Pedestrian Facilities Programs, out of \$427.3M budget for roads, bridges, sidewalks, pathways & intersections (3.1%).	2022	Source
Active Transportation Strategy			
City of Barrie (153,356)	AT Strategy incorporated into the Transportation Master Plan. Creating dedicated cycling, sidewalks and multi-use trails is part of the AT Strategy and is currently being implemented.	2019	Source
Selkirk, Manitoba (10,278)	AT Strategy approved by Council.	2021	Source
Region of Durham (645,862)	Regional Cycling Plan update identifies new routes and facilities to provide increased connections to key destinations that are comfortable to all users.	2012, 2021 update	Source

Active Transportation Budget			
Municipality (Population)	Budget Details	Year Committed	Reference
City of Hamilton (579,200)	In 2021 the City built 11km of new bike lanes and paved shoulders, upgraded 5.4km of existing bike lanes and 4.8km of multiuse trails. The City has an ongoing active transportation benchmarking program to measure usage of the AT infrastructure.	2021	Source Source 2

GHG Accounting By-laws

A more recent policy tool that is being implemented to reduce GHG emissions is to make GHG accounting and disclosure mandatory for large- and medium-sized buildings. The following municipalities have GHG emission accounting by-laws.

Municipality (Population)	Action	Year Committed	Reference
City of Montreal (1.78 million)	Building GHG disclosure and rating by-law. Targets large commercial and institutional buildings that rely on fossil fuels to heat. Eventually will impose energy performance benchmarks.	2021	Source
Selkirk, Manitoba (10,278)	GHG emission accounting by-law. The by-law means the City must track and report on corporate and community emissions using internationally recognized standards made publicly available. It sets specific reduction targets and established funding to ensure the City has the resources required to meet those goals. Making the carbon budget into a by-law.	2021	Source
City of Vancouver (675,218)	Requirements to reduce carbon emissions from existing buildings (upcoming action).	2022	Source

Other Low-Carbon Actions

In addition to other actions outlined below, the City of Orillia's 10-Year Capital Forecast includes provisions for bus fleet replacement. Additionally, the new Transit Terminal that is currently in the early phase of the detailed design, will include power supply and charging capabilities for future electric bus fleet vehicles, as well as electric vehicle charging within the proposed parking structure.

Municipality (Population)	Action	Details	Year Committed	Reference
City of Mississauga (828,854)	Bus Fleet Replacement	\$99.6 million for hybrid replacement bus acquisitions in 2022 Budget.	2022	Source
Town of Oakville (211,382)	Transit Fleet Electrification	The transition of the entire Oakville Transit fleet from diesel to electric is planned to be complete by 2036.	2021	Source
City of Brampton (603,346)	Solar Carport and EV Charger	The City is the first to offer solar-powered charging stations.	2021	Source
Sheridan College, Brampton	Large Solar Carport	The 500 kW project will generate approximately 700,000 kWh of solar energy annually, or 7% of the Davis Campus's annual usage, while saving 29 tons of emissions each year.	2017	Source

Financial Impact

As part of the October 2021 Special Council Report, high level cost estimates were provided to achieve a net-zero climate future for the Corporation of the City of Orillia. These estimates continue to be refined through the report finalization process. As a review, the estimated total high-level cost of achieving a net-zero corporate emissions reduction target was \$53 million. When reviewing the community investment required to support a low-carbon future, the municipal corporate investment required is included in the financial projections. Figure 4 below demonstrates the level of investment and returns community-wide for Orillia's low-carbon future. Investment for the entire community is projected on the order of \$1.3 billion, with a corresponding predicted \$1.8 billion in returns, over the course the modelled projections (2016 to 2050). These estimates are in the process of being refined through the report finalization process and are only provided to assist discussion with Members of Council.

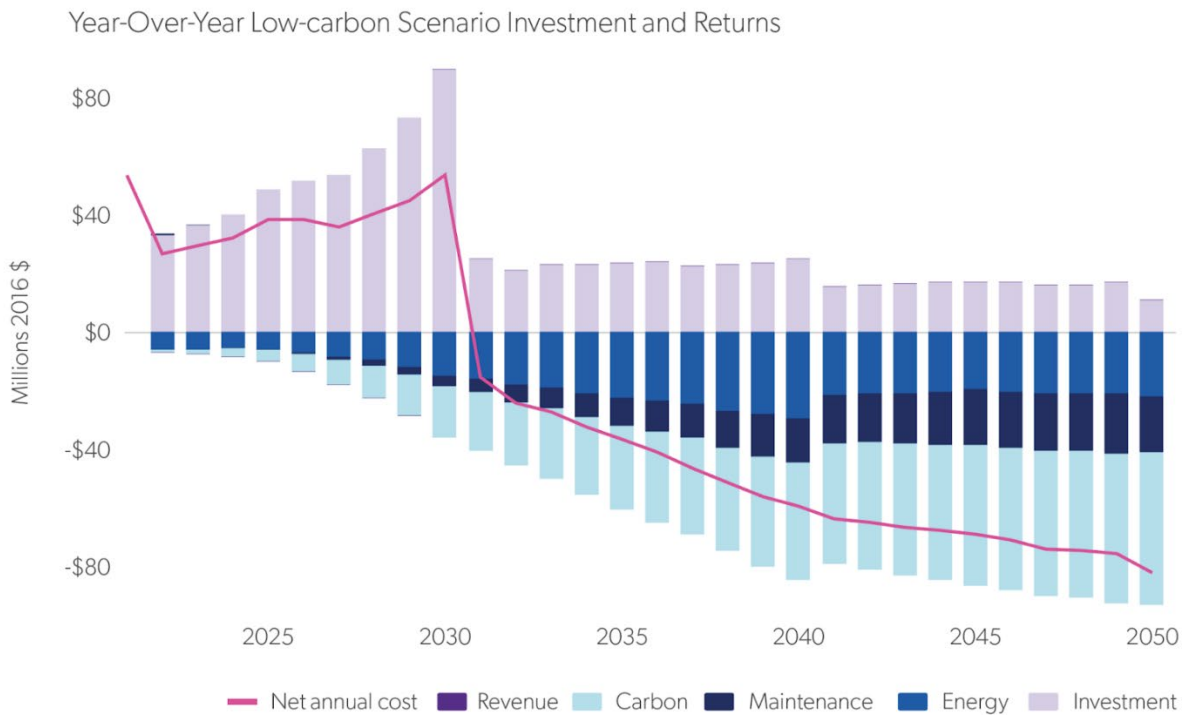


Figure 4 – Preliminary Year-Over-Year Low-Carbon Scenario Investment Returns

It is important to note that the financial implications of the Community plan do not rest solely with the City. The City will act as the champion for the community plan but will not be the only party having influence or implementation (including financial investment) for the plan. These costs are high-level and preliminary at the time of this report. They will serve to center discussion and assist Members of Council in their review of the presentation materials and objective for discussion and input arising from Report No. EIS-22-01. It should also be noted, wherever possible City capital projects should consider including GHG reduction aspects within the design and construction phases so that the cost may be marginal increases to projects otherwise being completed.

Based on the City's current financial situation, it has been communicated to Council that with the current state of reserves and expected asset management investments, a much larger investment will be required to initiate the low-carbon actions necessary to achieve the targets. There will be opportunities to leverage asset management requirements with upgrades and retrofits required to achieve emission reduction targets (for Corporate assets). However, overall a significant investment will be required from the City and will provide pressures associated with timing, prioritizing projects, asset renewal and underfunded projects.

Consultation

As part of the community engagement strategy a Community Based Steering Committee (CBSC) was established in June 2021 with representation from various community stakeholders. The CBSC includes representation from the following stakeholders:

- Orillia District Chamber of Commerce
- Community Development Corporation
- Sustainable Orillia & Youth Council
- Lakehead University
- Couchiching Conservancy
- Georgian College
- Hydro One
- Enbridge Gas
- Simcoe County District School Board
- Simcoe Muskoka District Health Unit
- Bass Lake Farms (Agricultural sector)
- Environmental Advisory Committee
- Active Transportation Committee
- Lowry Building
- Sheridan Seating
- Rama First Nations
- Orillia Soldier's Memorial Hospital
- Leadbetters Food (Belmont Food Group)
- Duncor Enterprises Inc.

The CBSC met during four key project milestones for staff to provide updates and solicit feedback/input from the working group, specific to the Community Climate Action Plan. Staff also presented and provided an opportunity for input from the Waste Management Advisory Committee and Environmental Advisory Committee.

In September 2021 staff hosted a Virtual Open House attended by close to 100 community members and lead by SSG with keynote speaker, Bob McDonald (from CBC's "Quirks and Quarks") as a means to foster community awareness and support for the forthcoming Community Climate Action Plan.

A public survey was also launched in September 2021 as part of the community engagement strategy through the City's newly established Orillia's Climate Future web portal. Full results of the public survey completed primarily for the Community Climate Change Action Plan will be summarized as part of the Community Climate Action Plan when it is brought forward in Spring 2022 for adoption by Council.

Survey results were utilized to determine the support locally for climate action guided by science-based targets. Of the 247 survey respondents who responded to this specific question, 86% either agreed or strongly agreed with climate action being guided by science-based targets. This means that 86% of interested and affected people, who live in Orillia and responded to the survey, provided this informed opinion with respect to target setting.

Survey results were analyzed to identify under-represented sectors of the population. To achieve more fulsome survey results, staff alongside the consultant hosted several targeted focus groups in December 2021. A local youth-focused (high school) workshop was hosted through the Sustainable Orillia Youth Council, and a separate post-secondary student workshop with representatives from Lakehead University and Georgian College also occurred. Additionally, several calls were made to members of the seniors'

population and to advocates of the vulnerable sector for those who were unable to attend virtual meetings.

An internal cross-functional staff workshop was hosted by the project team and consultant on December 14, 2021. Aside from the consultants and project team, 15 staff were invited to represent various skillsets and departments during the session. The primary focus of the workshop revolved around the Community BAU scenario as well as draft low-carbon actions proposed within the report. Staff identified low carbon actions and explored their potential implications with respect to City resources.

Economic Development Impact

There is no direct economic development impact associated with the recommended motion.

Communications Plan

The City of Orillia communications team has worked closely with EIS and SSG on providing a diverse “Our Climate Future” communications and engagement plan to help inform the public about the CAP and CCAP and gain their input. Ongoing communications and engagement efforts will continue, including updating the project webpage at orillia.ca/climatefuture, utilizing social media for updates and education, and providing project information through various communications channels, such as the Weekly Bulletin.

Relation to Formal Plans, City of Orillia Policy Manual and/or Guiding Legislation

The recommendation included in this report supports the following goals identified in the 2019 City of Orillia Strategic Plan:

- Quality of Life
 - 1.2 – Improve health and well-being of citizens. Initiatives related to this goal have the potential to improve the resident’s quality of life and reduce the strain on Orillia’s health care and social services.
- Healthy Environment
 - 2.1 – Continue the City’s commitment to environmental stewardship by increasing waste diversion, reducing our environmental footprint, enhancing urban greenery, ensuring clean water and promoting safe water management practices. This will help address concerns regarding climate challenges, as well as the desire to position Orillia as a leading municipality in addressing climate change. This goal has implications to both services the City undertakes and the infrastructure investments it makes.

- Sustainable Growth
 - 4.3 – Effectively manage growth via focused infrastructure investments that encourage environmentally attractive, affordable, diverse, financially sustainable and technology-enabled communities. This goal expands on item 4.1. And focuses on specific concerns around affordability, diversity and the environment. By ensuring future investments are aligned with these items will ensure that growth will be aligned with community priorities.
 - 4.4 – Promote economic development to create employment investment opportunities. This will help attract investment and create increased economic opportunity. Economic development was a significant concern raised in staff and public consultation and relates to concerns regarding low household income levels.

The recommendation included in this report is also related to the following formal plans, City policies and/or guiding legislation:

- *A Healthy Environment and a Healthy Economy, 2020*
- Provincial Policy Statement, 2020
- 2019 A Place to Grow: Growth Plan for the Greater Golden Horseshoe, as amended.
- City of Orillia Strategic Plan, 2019
- City of Orillia Official Plan, 2010
- City of Orillia Multi-Modal Transportation Master Plan, 2019

Conclusion

Staff is providing a project update with respect to the Climate Change Action Plan project. The draft Community Low-Carbon Scenario will be reviewed in full so that questions and discussion can occur. Council direction will be sought at a future meeting.

Schedules

- Schedule “A” – BAU + Low-Carbon Scenario, Orillia’s Climate Future: Council Update #2 Presentation

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