



**SUBJECT: Climate Action Plan for Burlington**

**TO: Environment, Infrastructure & Community Services Cttee.**

**FROM: Environment, Infrastructure and Community Services**

Report Number: EICS-01-20

Wards Affected: all

File Numbers: 210-19

Date to Committee: March 9, 2020

Date to Council: March 30, 2020

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**Recommendation:**

Approve the Burlington Climate Action Plan in Appendix A to report EICS-01-20;

Approve the interim target for Burlington to reduce community emissions by 50% below 2016 levels by 2030; and,

Approve the target for Burlington to become a net zero carbon community by 2050 (reducing emissions 100% below 2016 levels by 2050).

**PURPOSE:**

**Vision to Focus Alignment:**

- Support sustainable infrastructure and a resilient environment
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**Background and Discussion:**

The Burlington Climate Action Plan (Appendix A) is presented to council for approval. The focus of the plan is on community wide initiatives to reduce reliance on fossil fuels and resulting greenhouse gas emissions. It provides a framework to achieve the recommended target of becoming a net carbon neutral community by 2050 as reported in December (CW-20-19) with the seven key program areas including:

1. Low Carbon New Buildings
2. Deep Energy Retrofits for Existing Buildings

3. Renewable Energy
4. Electric Mobility and Equipment
5. Integrated Mobility
6. Waste Reduction
7. Industry Innovation

However, in response to comments from council, community members and organizations, some notable amendments have been made to the plan, including:

### **Carbon Reduction Targets**

- An interim carbon reduction target has been established in the plan where emissions will be reduced by 50% below 2016 levels by 2030. It is recommended that council also endorse the interim target.
- A longer-term target is also confirmed for Burlington to become a net zero carbon community by 2050.
- Based on the modelling using current conditions and technology, the city may have to purchase offset credits to make up the remaining 126 kilo tonnes of CO<sub>2</sub>e (equivalent carbon dioxide) emissions.
- These carbon reduction targets should ensure that the city meets requirements under the Global Covenant of Mayors program.

### **Milestones**

- Interim carbon reduction target milestones have been included in five-year increments until 2050.
- Milestones have been added for the three priority program areas including Deep Energy Retrofits for Existing Buildings; Renewable Energy; and Electric Mobility and Equipment (see new section on Implementation).

### **Implementation**

- Specific actions that can be implemented over the next three years (2020 – 2022) are provided for the three priority areas in a new section entitled Implementation including funding suggestions.

### **Trees**

- Information has been added to the plan about the importance of trees in Burlington. Additional attention will be given to trees and natural heritage in relation to improving community resilience under part two of the plan – Climate Adaptation Plan.

## **Partnerships and Collaboration**

- Information has been added describing the partnerships and networks that the city is involved in within the region, province, across Canada, and globally. It is recognized that partnerships and collaboration are necessary to achieve success by sharing best practices and lessons learned, developing programs and obtaining funding.

## **Implementation – the next three years**

To build momentum for community action on climate change, staff are recommending that the city focus on three priority areas to implement the Climate Action Plan. Recognizing that existing buildings and transportation sources are the largest source of emissions in Burlington, the three priority program areas provide an opportunity to reduce fossil fuels and emissions in these sectors. A series of implementable actions are included under these program areas. Notwithstanding these actions, it is also recognized that once task groups of experts are engaged, additional action items may be developed to achieve the goals of the plan.

## **Deep Energy Retrofits of Existing Buildings**

This program area will involve working and collaborating with other organizations to develop and implement a program to support the deep energy retrofit of existing buildings in Burlington. Actions to be implemented by 2022 include:

- Work in partnership with the Bay Area Climate Change Council and community stakeholders on this topic.
- Support a roundtable discussion hosted by BACCC on this topic with local experts.
- Develop an implementation team of local experts
- Support the partnership of the IESO (Independent Electricity Systems Operator), AMO (Association of Municipalities of Ontario), the City of Toronto and the Clean Air Partnership in their efforts to develop a regional approach to deep energy retrofits in Ontario. (This includes supporting their funding application to the Federation of Canadian Municipalities to develop the program).
- Review options to utilize the Local Improvement Charge as a potential financing mechanism.
- Monitor the federal government's commitment to support deep energy retrofits in the 2020 budget.
- Increase awareness for residents:
  - What is involved in a deep energy retrofits?
  - What are the costs?
  - Information about best practices and technologies
  - How to finance a retrofit?

- What type of contractors are required?
- **Stakeholders include:** Other interested municipal governments; utilities; builders and contractors; suppliers and retailers; architects; post-secondary institutions; Clean Air Partnership

## **Renewable Energy**

This program area will entail working with local stakeholders to assess best practices and feasibility to developing a renewable energy cooperative in Burlington to support and accelerate the installation of renewable energy projects in Burlington. Actions to be implemented by 2022 include:

- Host a roundtable of experts to discuss opportunities and barriers of expanding renewable energy in Burlington
- Create a task force of experts in the field
- Create a how to guide for homeowners
  - Steps to take for solar panels; geothermal, etc.
  - What permits are required?
  - What type of contractors are required?
  - What are the costs and how to finance?
  - Information about best practices and technologies
- Research the feasibility of developing a renewable energy cooperative in Burlington
- **Stakeholders include:** Burlington Hydro; Enbridge; IESO; BurlingtonGreen; Green Venture; Halton Region; The Atmospheric Fund; Renewable Energy Associations

## **Electric Mobility & Equipment**

This program will require ongoing community engagement to raise awareness about the importance, opportunities and benefits of electrifying mobility options and equipment (lawn mowers, leaf blowers and trimmers, etc.). Actions to be implemented by 2022 include:

- Host a roundtable of experts to discuss opportunities and barriers of electric mobility in Burlington
- Create a task force of experts
- Continue to support the expansion of charging infrastructure in Burlington
- Work with community stakeholders to engage the community:
  - Test drive events with Plug'n Drive
  - Information about the benefits of EVs, e-equipment and e-bikes
- Stakeholders include: Burlington Hydro; BurlingtonGreen (Make the Switch program); Halton Climate Collective; developers; IESO; manufacturers and dealerships; retailers

## **Other Program Areas**

Notwithstanding the three priority program areas identified above, work will continue on the other program areas:

### **Low Carbon New Buildings**

- Staff will proceed to update the Sustainable Development & Building Guidelines through a review of best practices to encourage and/or incent new buildings to be achieve low carbon standards.

### **Integrated Mobility**

- Transportation Services will develop the Integrated Mobility Plan to support the mobility of people in Burlington through sustainable transportation options such as active transportation and transit.

### **Waste Reduction**

- Halton Region remains the lead agency for waste management for the residential sector. Burlington will continue to focus on its own operations where resources permit.

### **Industry Innovation**

- Staff will support initiatives in this sector where resources allow, such as the programs delivered by Sustainable Hamilton Burlington, Enbridge Gas and the IESO (Independent Electricity Supply Operator).

## **Strategy/process**

The development of the Climate Action Plan began in the summer of 2019 with a public engagement process that culminated with a report presented to the Committee of the Whole on December 2<sup>nd</sup>, 2019 (report CW-20-19). The draft plan was tabled to allow for public review of the document. Given that council and the public had limited time to review the plan before the December 2<sup>nd</sup> COW meeting, the plan was also included on the January 9<sup>th</sup> Environment, Infrastructure & Community Services Committee agenda to allow for delegations to speak. The plan was made available for public review during December and January. Comments were submitted through the city's engagement site [www.getinvolvedburlington.ca](http://www.getinvolvedburlington.ca) via an on-line survey as well as received directly by staff.

## **Options Considered**

The option to continue 'business as usual' is presented in the Climate Action Plan. However, this option does not meet the city's Strategic Plan 2015-2040 as well as Vision to Focus 2018-2022 objectives to work towards being a new carbon neutral community.

## **Financial Matters:**

### **Future Resources - Implementation of Climate Action Plan**

Staff will continue to work with and leverage our partnerships to fund initiatives and report back as required for funding requests.

For a Deep Energy Retrofit Program, staff support working with the consortium of partners that include the City of Toronto, the Association of Municipalities of Ontario, the IESO (Independent Electricity Supply Operator) and the Clean Air Partnership in their efforts to develop a regional program which municipalities can sign onto. It is unclear at this point whether municipal participants will be asked to contribute capital to support loans for deep energy retrofits or if third party financing will be available. It is, however, expected that municipalities will be asked to administer the loan and payback process through the Local Improvement Charge process if implemented. It may take a year to 18 months to develop this regional program. Staff anticipate reporting back in 2021 on this initiative with further details and a potential budget request (if required).

As noted above, partnerships can provide opportunities for the city to apply for funding where it might not qualify. Some funding programs are only available to charitable organizations. Staff are in the process of working with the Centre for Climate Change Management at Mohawk College on an application to obtain funding to complete a feasibility study for a renewable energy cooperative in Burlington. In the absence of the provincial FIT (Feed-in Tariff) program, this project would review other options available to develop a community based cooperative or equivalent type of program to support and accelerate renewable energy installations in Burlington.

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## **Climate Implications**

Burlington city council declared a climate emergency in April 2019 in response to the concerns about the impact that a changing climate is having on the city and communities around the globe. The Climate Action Plan provides a framework to reduce the use of fossil fuels in the community, the main contributor to greenhouse gas emissions, resulting in climate change.

Council recently approved several initiatives in the 2020 budget to support climate action, including:

- Support for the administration of the Bay Area Climate Change Council and Office;
- Development of the Climate Adaptation Plan (part 2 of the Climate Action Plan);

- Additional electric vehicle charging stations;
- Additional FTE position to support energy and climate initiatives;
- Private tree by-law and additional tree planting;
- Green fleet strategy update;
- Urban Forestry Management Plan update; and,
- Additional investment in Transit.

However, as noted in the plan, the city does not control all the levers and there is no silver bullet to achieve success. The time for business as usual has ended; it is now time for transformation and long-term decision making.

The near-term milestone targets included in the plan are aspirational, such as 21,000 single detached dwellings retrofitted by 2025 and almost 80 megawatts of net meter solar and ground mounted solar PV installed by 2025. As noted above, considerable effort and resources will be required to meet the milestone targets in the plan. Support from senior levels of government is crucial to provide funding, enabling policy/legislation and program development. Partnerships and collaboration are also necessary with local and regional organizations, stakeholder groups and neighbouring municipalities to leverage resources, funding, staff time and volunteers. All this is needed to reach the target of being a net carbon neutral by 2050 through the reduction of 1.2 million tonnes of greenhouse gas emissions.

The second phase of the Climate Action Plan involves the development of the Climate Adaptation Plan. Climate adaptation is acknowledging that the community is and will continue to be impacted by a changing climate and implementing policies, initiatives and actions to respond in a strategic manner.

Staff are in the process of creating the workplan and assessing the required resources to complete the plan. In summary, the process will require a number of workshops with staff representing service areas and community stakeholder groups to review climate impact data for Burlington, sectors at risk and vulnerable to climate change, actions that are already in place and new measures/initiatives required to respond to climate change.

City staff will receive some support to develop the Adaptation Plan through the Showcase Cities program supported by FCM (Federation of Canadian Municipalities), ICLEI – Local Governments for Sustainability, the International Urban Cooperation Program, and Global Covenant of Mayors for Canada.

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## **Engagement Matters:**

The engagement process to develop the Climate Action Plan was described in report CW-20-19.

Following the presentation of the draft Climate Action Plan to the Committee of the Whole on December 2<sup>nd</sup>, 2019, the plan posted on the city's website for public review and comment from December 2019 to January 2020. An online survey was posted on the city's engagement site [www.getinvolvedburlington.ca](http://www.getinvolvedburlington.ca) with questions on each of the seven program areas. The survey was completed by 33 residents (see Appendix B) where all comments posted online are included along with a staff response. In addition, comments were received directly from three individuals, one consultant and one staff member; and four organizations (Sustainable Development Committee; BFAST, Bay Area Climate Change Council and BurlingtonGreen). These comments and responses are included in Appendix C. Staff have also met with individuals and council members on request.

The Stakeholder Advisory Committee for the Climate Action Plan met in January to discuss issues related to implementation of the plan including quick wins, partnerships/collaboration, and community engagement.

Staff also note that there are many initiatives taking place in 2020 within Burlington, Halton Region and the Bay Area related to climate change:

- Presentation by Cara Clairman, CEO for Plug'n Drive, 'Driving Ontario's Clean Energy Future' – hosted by McMaster Centre for Climate Change (and supported by City of Burlington) – Feb 6, 2020
- Halton Action on Climate Change – Come Share Your Voice – an event for concerned citizens in Halton to speak about climate issues and solutions – Hosted by the Halton Environmental Network, BurlingtonGreen, OakvilleGreen and the Climate Reality Project – Feb 10, 2020
- Bay Area Climate Change Forum – hosted by the Bay Area Climate Change Council (supported by the Cities of Burlington & Hamilton and the Centre for Climate Change Management @ Mohawk) – Feb 25, 2020
- Community Eco Network – An event to discuss climate and environmental issues – hosted by BurlingtonGreen – Feb 26, 2020
- Going Green: Learn How to Save Money and Help the Environment – hosted by Port Nelson United Church – Feb 29, 2020
- Executive Briefing on Climate Change Risks and Opportunities – featuring Bob Willard, business sustainability expert, along with Carla Nell (Chamber of Commerce), John Lennartz (Samuel Steel), and Lynn Robichaud (City of Burlington) – March 12, 2020
- Could your next car be electric? – presentation by Plug'n Drive and opportunity for test drives – hosted by Sustainable Development Committee – May 7, 2020

The number of initiatives taking place in Burlington show the level of engagement that community members have for climate action. And these are only the events that staff are aware of at this time. Some additional initiatives include:



- The Environment & Energy staff team at City Hall has also launched climate action lunch & learns for city staff related to energy conservation, low impact development, and electric vehicles, with more topics in development.
- HERO – Home Energy Retrofit Orientation - Staff have also entered into a partnership with Humber College and the City of Hamilton to host three workshops for residents in the spring on what is involved in a deep home energy retrofit.
- HCC Reads – The Halton Climate Collective is partnering with the local municipal libraries, including Burlington Public Library to feature the book ‘The Right to be Cold’ by Sheila Watt-Cloutier. HCC will host public events with a special guest to discuss the book.

Community engagement will be an important part of the implementation of the Climate Action Plan. The Engagement Strategy that was presented at the December 2<sup>nd</sup>, 2019 Committee of the Whole meeting is attached as Appendix D for information. The next priority for staff is to work with local stakeholders and other partners to develop the information and programs to provide guidance and incentives for homeowners and businesses.

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## **Conclusion:**

The attached Climate Action Plan represents part one of the plan focusing on programs to help Burlington achieve its net zero carbon target by 2050. The next phase to begin in 2020 is completion of part two of the Climate Action Plan with a focus on community resiliency by assessing the projected impacts of climate change, identifying areas and populations at risk and vulnerable to climate change, what actions are already taking place and opportunities for improvement. The implementation of the Climate Action Plan will help to ensure that Burlington is showing leadership by becoming a net zero carbon resilient community.

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Respectfully submitted,

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**Appendices:**

- A. Burlington Climate Action Plan
- B. Get Involved Burlington Survey Results and Staff Response
- C. Additional Public Feedback on the Climate Action Plan and Staff Response
- D. Climate Action Plan Engagement Strategy

**Report Approval:**

All reports are reviewed and/or approved by Department Director, the Chief Financial Officer and the Executive Director of Legal Services & Corporation Council. Final approval is by the City Manager.