



City of
Peterborough

To: Members of the General Committee

From: Michael Papadacos, Commissioner, Infrastructure, Planning and Growth Management (Acting)

Meeting Date: April 2, 2024

Report: Climate Change Action Plan 2.0 Update, Report IPGACP24-003

Subject

A report to provide Council with an update on the Climate Change Action Plan 2.0 – Pathway to Net Zero project.

Recommendation

That the Council approves the recommendation outlined in Report IPGACP24-003, dated April 2, 2024, of the Commissioner of Infrastructure, Planning and Growth Management (Acting), as follows:

That the report be received for information.

Background

The first community [Climate Change Action Plan](#) (CCAP) was adopted by Peterborough City Council in 2016. The CCAP introduced multiple primary and supporting decarbonization actions across sectors, including strategies to lower housing, business, and transportation emissions. A community greenhouse gas (GHG) inventory was created to gauge the impact of sectoral emissions in Peterborough. The CCAP also introduced a 30 percent GHG reduction mitigation target to be achieved by 2031 from the 2011 baseline year. The CCAP was created by Sustainable Peterborough in partnership with the City of Peterborough, the County of Peterborough, all county townships, and Hiawatha and Curve Lake First Nations.

The CCAP has been successful in directing the creation of many foundational community climate initiatives since its adoption. Several climate actions are a direct result of the CCAP that would not have likely been developed otherwise, such as:

- [Solar Photovoltaic Community Map](#),
- [Green Economy Peterborough](#),
- [Home Energy Efficiency Program](#); and
- Expansion of community [electric vehicle charging station](#) network.

In 2019, City Council ratified the [Climate Emergency Declaration](#) (CED) for the “purpose of naming, framing and deepening our commitment to protecting our community, its economy, and its ecosystems from climate change.” The CED introduced new GHG emission targets of 45 percent by 2030 and net zero by 2050, replacing the 30 percent goal in the CCAP. In addition, the CED directed staff to add new mitigation actions and identify the budgetary implications of the proposed actions.

Despite the accomplishments of the CCAP, City staff determined that the CCAP would not be sufficient to meet the CED’s net zero reduction goal due to the limited number of planned actions to realistically achieve the target. Moreover, an improved [community GHG inventory](#) completed by City staff revealed that the 2011 baseline community emissions profile was significantly higher than previously calculated in the CCAP. The change in the baseline effectively reduced the ability of the existing actions in the CCAP to reach the 2030 target.

In 2023, the City initiated the Climate Change Action Plan 2.0 – Pathway to Net Zero 2050 (CCAP2.0) project to supersede and overcome the limitations of the CCAP. The CCAP2.0 will be a measure-based community decarbonization plan designed to achieve net zero emissions by 2050. Specifically, the CCAP2.0 is investigating the impact of how low-carbon mobility, low-carbon buildings, and enhanced natural assets can realize the abatement target in Peterborough. Key features of the CCAP2.0 include:

- GHG pathway modelling to assess the interactive impact of the measures to reach net zero,
- Descriptions of how each measure will lower community GHG emissions with its associated GHG emission reduction potential,
- Estimated cost to be incurred by the City to implement the measure,
- Expected timeline for the introduction of each measure (2025-2030, 2031-2040, 2041-2050),
- Key performance indicators to track reduction progress,
- Distinguishing measure co-benefits that may support community goals such as adaptation, public health improvements, local employment, and enhancing diversity-equity-inclusion outcomes; and
- Identify the role of the City in implementing the measure by denoting if the City has direct control, in-direct influential control, or an advocacy role in achieving the net zero outcome.

To support the immediate execution of the CCAP2.0, an Implementation Plan will be developed to guide the introduction of measures between 2025 and 2030. The Implementation Plan will include the following:

- Identify the City division designated to implement or support implementation,
- Identify any external community partners to consult or partner with to implement the measure; and
- Identify any external grant opportunities the City can apply for measure implementation.

Project Update

The City hired the Sustainability Solutions Group (SSG), a leading Canadian GHG modelling and net zero planning organization, to develop the CCAP2.0. In addition to modelling, SSG is overseeing stakeholder engagement of the project. In July 2023, the CCAP2.0 project kicked off.

The following sections are the project deliverables completed or planned to date.

Community Engagement

In August 2023, SSG completed pre-engagement activities to identify local stakeholders to consult and involve in the development of the project. Numerous local stakeholders from several sectors, such as non-profits, businesses, equity-denied groups, utilities, and community organizations, were interviewed by SSG to create a foundational understanding of Peterborough's unique community needs. Pre-engagement allowed SSG to determine if there were any issues with the planned engagement approach, if any key stakeholders were not identified that could be contacted, and the most important aspects the CCAP2.0 should consider. In addition to community stakeholders, SSG also met with several City staff to discuss the project.

The completion of the pre-engagement phase led to the creation of the project Engagement Plan that detailed the strategy of how the CCAP2.0 would be conducted for the duration of the project. The Engagement Plan included several engagement activities to capture community and stakeholder perspectives to support the refinement of the abatement measures. The International Association of Public Participation guidelines were embedded in the Engagement Plan to ensure that stakeholders had the opportunity to be informed and involved in influencing project decision-making.

In November, the CCAP2.0 entered the engagement phase with the following tasks completed by SSG and City staff:

- A Connect Peterborough CCAP2.0 project page was developed and published by City staff in November. The page is the landing site for residents to learn more about the project and contains background information about the project and climate change, interactive polling and open forums for residents to upload

responses, and project timelines to provide residents with opportunities to engage on the progress of the CCAP2.0. As of January 31, the project page had received 381 views.

- A community questionnaire embedded in the Connect Peterborough CCAP2.0 project page collected input from 55 individuals from November to December. The results will be used in concert with other engagement activities to determine potential community mitigation actions.
- In November, City staff spoke to the Youth Leadership in Sustainability class to discuss the goal of the CCAP2.0 and how community climate action planning is critical to lowering GHG emissions.
- In December, a community phone survey was conducted by Environics Analytics to gather feedback from a statistically representative sample of residents to reflect the population distribution in Peterborough, achieving 500 responses (margin of error of ± 4.4 percentage points at the 95% confidence level). The SSG will use the input to frame potential climate action measures that reflect the general population's perspectives on climate action.
- The first Community Working Group (CWG) session, composed of multisectoral stakeholders and City staff, was convened by SSG in December. The project consultant presented the completed community GHG models of the Business-as-Usual and Business-as-Planned scenarios to the CWG. Breakout sessions allowed working group members to interact and discuss what mitigation actions would need to be considered to decarbonize across community sectors.
- In January, City staff presented how community climate action planning is conducted and provided details about the CCAP2.0 project to a class of sustainability students at Trent University.
- In February, an equity-deserving focus group composed of advocacy and community-benefit organizations met with SSG to address how the CCAP2.0 can incorporate measures that improves the outcomes for disadvantaged community members when it comes to mitigating GHG emissions.
- The second CWG was hosted by SSG in February that presented a jurisdictional scan of municipal abatement measures and preliminary GHG modelling to the working group. The CWG helped identify new actions to achieve net zero that best fit Peterborough.

Additional engagement activities are in progress occurring through April, 2024, which include the following:

- A third CWG session presenting the final GHG modelling and draft CCAP2.0 Report to the working group members. SSG will capture any necessary revisions to the document.

- SSG will present the final report findings to the Peterborough Environmental Advisory Committee.

Jurisdictional Scan

A jurisdictional scan was completed by SSG that researched other North American municipalities with community net zero plans to ascertain which measures would be best suited to fit the Peterborough context. A list of measures was compiled and verified by City staff to ensure that the actions aligned with existing City plans and policy goals. The measures were presented to the CWG in February, with measures being modified or removed and new actions being nominated by working group members. The selected measures will subsequently be modelled to determine the community-wide GHG reduction impact of each measure to achieve net zero.

GHG Scenario Modelling

Greenhouse gas scenario modelling is central to the CCAP2.0 to ensure that all measures contribute substantially to the net zero target. The model is supplied with community information provided by City staff, including demographics, land use, transportation, buildings, utility data, water, waste, and wastewater. Planning documents were also input into the model, such as the Official Plan, Transportation Master Plan, and Cycling Master Plan.

In December, SSG completed two baseline scenarios, the Business-as-Usual (BAU) and Business-as-Planned (BAP) pathway models. The BAU Pathway modelled expected population and business growth for Peterborough until 2050 without implementing any climate action measures to lower emissions. The BAU only considered general changes in building and transportation efficiency that would happen gradually without intervention by the City, such as improved fuel efficiency of vehicles. The BAP Pathway modelled climate and sustainability actions and plans proposed by the City that will occur by 2050, such as the Home Energy Efficiency Program and the Transportation Master Plan. The BAP also takes into account the projected population and business growth of Peterborough. The BAP will be used as the reference benchmark to measure all the net zero reduction pathways against.

Three scenarios will be developed by SSG that plot decarbonization pathways to reach net zero:

- Net Zero 2050 Pathway – achieves the target as planned by 2050,
- Net Zero 2040 Pathway – accelerates achieving the target by 2040; and
- Alternative Fuel Pathway – uses a combination of low-carbon fuels (e.g., hydrogen and renewable natural gas) to achieve net zero by 2050.

The measures compiled from the jurisdictional scan and added actions from the CWG will be modelled for all three pathways.

Next Steps

The remaining CCAP2.0 project activities and timelines to be completed by SSG are provided in Table 1.

Table 1 – CCAP2.0 Schedule

Activity	Description	Schedule
GHG Pathway Modelling	Complete the three net zero pathway models.	March/April
Community Working Group #3	The third CWG will present the final report.	April
Final CCAP2.0 Report	Complete the final draft of the CCAP2.0 Report	April/May
Final Implementation Plan	Complete the final draft of the Implementation Plan	April/May
Peterborough Environmental Advisory Committee Presentation	Provide PEAC with a presentation of the CCAP2.0 and receive endorsement.	April/May
Administrative Staff Committee (ASC) Presentation	Provide ASC with a presentation of the CCAP2.0.	May/June
City Council Presentation	Provide City Council with a presentation of the CCAP2.0 and request that a motion of Council be passed to adopt the CCAP2.0 as the new official community climate action plan.	June/September

Strategic Plan

Strategic Pillar: Community and Wellbeing

Strategic Priority: Demonstrate strong leadership in environmental stewardship by proactively addressing issues and challenges of climate change and the environment.

Approval of this report links to the City's strategic priority pillar of Community and Wellbeing through the eventual implementation of the new CCAP2.0 that ensures that Peterborough will be able to realize net zero GHG emissions by 2050.

Budget and Financial Implications

There are no budgetary or financial implications associated with the recommendation.

Submitted by,

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