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Report 2024-116

Report Title: Draft Corporate Greenhouse Gas Emissions Reduction Plan

Committee Name: Public Works

Committee Meeting Date: September 5, 2024

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Council Meeting Date: September 18, 2024

Strategic Plan Priorities: Innovate for Service Excellence
 Ignite Economic Opportunity
 Foster a Thriving Community
 Propel Sustainable Growth
 Champion a Vibrant Future

Information Report

That the Public Works Committee receive Report 2024-116 ‘Draft Corporate Greenhouse Gas Emissions Reduction Plan’ for information; and

Further That the Committee recommend that County Council receive this report for information.”

Purpose

The purpose of this report is to present a first draft of the Corporate Greenhouse Gas Emissions Reduction Plan to Council for information purposes.

Background

We are experiencing the impacts of climate change, including here in Northumberland County. The changes in climate that we are seeing today are caused by increased greenhouse gas emissions resulting from human activities.

The global community signed on to the Paris Agreement in 2016, with the goal to limit global average temperature rise to well below 2°C and pursue efforts to limit it to 1.5°C above pre-industrial levels. The Intergovernmental Panel on Climate Change emphasizes that rapid and immediate reductions in greenhouse gas emissions are needed to keep the goals of the Paris Agreement in reach. The Government of Canada has committed to reduce greenhouse gas emissions by 40-45% below 2005 levels by 2030 and reach net-zero emissions by 2050.

Climate action requires both mitigation and adaptation. Mitigation involves reducing greenhouse gas emissions and increasing carbon sequestration, while adaptation involves preparing for and adjusting to the impacts of climate change that we are currently experiencing and the impacts we are expected to experience in the future.

In early 2019, the County was successful in receiving a grant from the Federation of Canadian Municipalities to hire a contract employee for a two-year term to develop a local climate action plan.

In June of 2019, Northumberland County joined the Partners for Climate Protection (PCP) Program and committed to a goal of reducing greenhouse gas emissions by 30% by 2030 and 80% by 2050 as compared to 2005 levels. The PCP Program provides a five-milestone framework, guidance, and resources for reducing greenhouse gas emissions.

In September of 2023, Northumberland County adopted a Strategic Plan which set the goal to respond to the climate crisis through reducing the carbon footprint of County operations through the development of a Climate Action Plan.

In early 2024, the County hired a dedicated Environmental Officer. This role is responsible for updating the County's greenhouse gas inventory, finalizing the Corporate Greenhouse Gas Emissions Reduction Plan, and developing a Climate Adaptation and Resiliency Plan.

The County has completed several actions to date that have reduced corporate greenhouse gas emissions. This includes:

- Implementing waste diversion programs such as the green bin program, seasonal leaf and yard waste collection, and two stream recycling collection.
- Developing and implementing a telecommute program for employees.
- Purchasing hybrid vehicles for the fleet.
- Constructing new corporate buildings to energy efficient standards (e.g., LEED certification.)
- Completing LED lighting upgrades for streetlights and corporate buildings.
- Completing energy efficiency upgrades for buildings (e.g., heat pump installation.)

Consultations

Various County departments were engaged during the development of the draft plan to discuss our corporate greenhouse gas inventory and brainstorm potential actions. Once drafted, the plan was circulated to all departments for review and input.

Following this presentation, staff are looking to consult the community on the draft plan. It is intended that the draft plan will be posted for public input and shared directly with key stakeholders.

Legislative Authority / Risk Considerations

The County is not legislatively required to develop a Corporate Greenhouse Gas Emission Reduction Plan; however, without such a plan, staff would not have the necessary direction or finances required to meet the County's current commitment to reducing its GHG emissions by 30% by 2030 and 80% by 2050, as compared to 2005 levels.

Discussion / Options

The below discussion is broken out into five sections. The sections focus on the five-milestone framework that the Partners for Climate Protection have adopted and identified as necessary to developing a successful Corporate GHG Emissions Reduction Plan.

Milestone 1: Greenhouse gas inventory

The greenhouse gas inventory for corporate operations has been updated for 2005 and 2019-2023.

In 2023, total emissions for corporate operations were 27,355 Tonnes of Carbon Dioxide Equivalent (tCO_{2e}). Waste in our landfill accounted for 82% of emissions, County owned fleet and employee commuting accounted for 13% of emissions, and the County's buildings and facilities accounted for 5%.

In 2005, greenhouse gas emissions from County operations were 36,701 tCO_{2e}. Overall, corporate emissions have decreased by 25% since 2005.

Corporate greenhouse gas emissions are projected to be approximately 25,376 tCO_{2e} in 2030 in the absence of any additional measures. This is a reduction of 31% from 2005 levels. Projected emissions consider annual population growth, changes in operations such as the sale of the Material Recovery Facility, and planned projects such as increased waste diversion programs.

Milestone 2: Greenhouse gas reduction target

County Council previously adopted a greenhouse gas reduction target of 30% below 2005 levels by 2030 and 80% by 2050. Through updating the greenhouse gas inventory, it was found that the County has reached a 25% reduction from 2005 levels and is projected to reach a 31% reduction by 2030 in a business-as-usual scenario. The draft plan recommends updating the target to 65% below 2005 levels by 2030 and reach net-zero emissions by 2050. A 65% reduction by 2030 is ambitious yet feasible should landfill gas be captured and flared at the Brighton Landfill. The federal government has proposed regulations '*Regulations Respecting the Reduction in the Release of Methane (Waste Sector)*' that could require landfills such as the Brighton Landfill to control methane emissions.

Milestone 3: Developing a local action plan

The scope of the draft plan focuses on our corporate greenhouse gas emissions which includes emissions from sources that are under direct operational control of the County, namely our buildings and facilities, fleet and landfill. To effectively reduce our emissions, it will be crucial to build a culture of climate action across various County departments and embed climate considerations across our policies, programs, and strategic plans. Additionally, the draft plan acknowledges the role that the County plays as a landowner, in advocating to higher levels of government, and in collaborating with community partners and member municipalities to influence change beyond our direct operations.

There are six proposed focus areas identified in the draft Corporate GHG Emission Reduction Plan and twenty proposed actions, with more specific initiatives under each action:

Focus Area 1: Waste Management

- Increase waste diversion.
- Capture methane from the Brighton Landfill.

Focus Area 2: County Fleet and Staff Commuting

- Establish a Green Fleet and Equipment Policy and Action Plan.
- Provide solutions for sustainable employee commuting.

Focus Area 3: County Buildings and Facilities

- Construct new buildings and major renovations to net-zero or near net-zero carbon emissions where feasible.
- Retrofit existing County buildings and facilities for increased energy efficiency.

Focus Area 4: Building a Culture of Climate Action

- Implement a climate change lens on strategic plans, policies, and decisions that come to council.
- Identify and manage current and future climate impacts on County operations.
- Facilitate local collaboration on climate action.

Focus Area 5: The Natural Environment

- Continue to preserve and protect natural heritage.
- Maintain and enhance naturalization in the County.
- Enlarge the County Forest.

Focus Area 6: Advocacy and Influence

- Advocate for continued decarbonization of Ontario's electrical grid.
- Advocate to the provincial and federal governments for increased funding for climate change mitigation initiatives.
- Encourage member municipalities to develop green development standards.
- Support and encourage the expansion of public transportation options.
- Integrate active transportation into capital projects.

- Promote sustainable business and tourism and share decarbonization resources with local businesses and operators.
- Advocate for home retrofit financing for low-income households including renters.
- Communicate the importance and benefits of climate action to the community.
- Encourage the expansion of electric vehicle infrastructure to support the community shift to electric vehicles.

Milestone 4: Implementation

Each action under focus areas 1-5 in the draft plan corresponds with a particular initiative, department, timeline, and high-level cost in an implementation table. These initiatives will require more detailed assessments as part of the budget planning process, including estimated capital expenditures and the operational cost savings associated with each project. Funding and partnership opportunities will be critical for implementing many of the actions outlined in the draft plan.

Milestone 5: Monitoring progress

Progress toward the targets and actions outlined in the plan will be outlined in annual progress reports and presented to senior leadership and County Council. Additionally, the County's public dashboard tool will be updated to reflect annual corporate greenhouse gas emissions and progress toward the established 2030 target. It is recommended that the next comprehensive update to the plan should take place in 2029, after five years of implementation, to further scope out a more detailed pathway to reaching the 2050 target.

Financial Impact

Funding requests to complete initiatives identified within the plan will be brought forward for Council's consideration and approval as part of the budget planning process.

Member Municipality Impacts

While the draft plan primarily focuses on the direct operations of Northumberland County, it also acknowledges ways the County can work with member municipalities to influence broader change. Additionally, the draft plan recommends that the County can assist member municipalities with developing greenhouse gas inventories and climate action plans as a shared service, where there is an interest.

Conclusion / Outcomes

The Corporate Greenhouse Gas Emissions Reduction Plan has been drafted in consultation with staff. Following this presentation, staff plan to engage with stakeholders and the community on the draft plan before bringing a final draft for consideration by County Council.

Attachments

1. Report 2024-116 ATTACH 1 'Presentation – Draft Corporate Greenhouse Gas Emissions Reduction Plan'
2. Report 2024-116 ATTACH 2 'DRAFT Corporate Greenhouse Gas Emissions Reduction Plan'