



**Region of Waterloo**  
**Planning, Development and Legislative Services**  
**Community Planning**

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**To:** Chair Tom Galloway and Members of the Planning and Works Committee

**Date:** May 29, 2018      **File Code:** D06-80

**Subject: Climate Action Waterloo Region - Long-term Community Emission Reduction Target**

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**Recommendation:**

That the Regional Municipality of Waterloo:

a) Endorse a region-wide community greenhouse gas emission reduction target of 80% below 2010 levels by 2050, to align with international, federal and provincial reduction targets as recently approved by the Cities of Cambridge, Kitchener and Waterloo; and,

b) Direct staff to continue to collaborate with community partners to develop incremental action plans and implement specific local actions in support of reaching the long-term target.

**Summary:**

The Region of Waterloo has a long-standing commitment to environmental sustainability and has demonstrated leadership in this regard through initiatives such as the Regional Growth Management Strategy, water resource protection and efficiency plans, waste diversion, and development of the ION LRT system. In 2010, the Region formally committed to reducing greenhouse gas emissions through its participation in the Federation of Canadian Municipalities Partners for Climate Protection program as referenced in report CR-FM-10-007 dated April 6, 2010.

Over the past eight years, staff have been working internally and with community partners to develop corporate and community emissions inventories and action plans along with establishing greenhouse gas reduction targets. Locally, emission reduction work has been initiated through the development of a Community Greenhouse Gas Action Plan including an emission reduction target of 6% below 2010 levels by 2020 which area municipalities approved as described in report CR-FM-13-022, dated December 3, 2013.

More recently, the Community Energy Investment Strategy for Waterloo Region (report PDL-CPL-18-06, dated February 27, 2018) was supported by all area municipalities which includes an estimated impact of implementing 22 local opportunities that will reduce GHG emissions by approximately 54% by the year 2041. These action oriented plans support projects that aim to reduce GHG emissions locally including promoting use of public transit services, making the Region more electric vehicle (EV) friendly, supporting community car share and bike share programs, promoting energy conservation incentive programs, supporting local energy generation projects, achieving green building standards, and diverting organics waste.

On June 6, 2017 Regional Council received an update from ClimateActionWR entitled Our Progress Our Path which showed that overall community greenhouse gas emissions decreased in Waterloo Region by approximately 5% between 2010 and 2015 as described in report PDL-CPL-17-14. At this time, Regional Council also approved the recommendation for Regional staff to continue to participate with other community partners in the engagement process to establish a long-term community greenhouse gas (GHG) reduction target for further consideration by Council in 2018.

A greenhouse gas emissions reduction target of 80% below 2010 levels by 2050 has been adopted internationally, federally, provincially as well as many other municipalities. The Cities of Cambridge, Kitchener and Waterloo have recently approved this same target during April and May 2018. Through consultations, the Area Townships also voiced general support for the target. Community consultations along with scientific evidence indicates that this broadly supported target is also suitable for Waterloo Region. In addition to the direct benefits of reduced GHG emission, working towards this ambitious target will support economic development opportunities in the clean tech sector, reinforce community resiliency through local energy investments, improve air quality and human health, and support the creation of more livable and walkable communities.

It is anticipated, given the current macro economic, global market, and wide scale policy trends, the majority of the proposed emissions reduction will be achieved through forces external to the Region such as carbon pricing and the increasing global investment in renewable energy sources and adoption of electric vehicles. Although there is a degree of uncertainty related to endorsing a long-range target, due to multiple opportunities for political change at the provincial, national and global level, there are also future opportunities to revisit progress made towards achieving the target and re-focus the action plan as necessary.

Next steps will include a community engagement process to develop the next Climate Action Plan beyond the current plan which reaches 2020. The next Climate Action Plan will build on the work included within the Community Energy Investment Strategy including further engagement of local stakeholders to achieve community ownership of the plan and its implementation.

**Report:****Background**

The Region of Waterloo has a long-standing commitment to environmental sustainability and has demonstrated leadership in this regard through numerous initiatives, programs and plans. Examples of these include the Regional Growth Management Strategy, water resource protection and efficiency plans, waste diversion and effective landfill management, transportation demand management, and development of the ION LRT system. Many of these initiatives help directly or indirectly curb harmful emissions to the environment by influencing local land use planning, transportation choice, responsible use of energy, and natural resource conservation.

In 2010, the Region formally committed to reducing greenhouse gas emissions through the Federation of Canadian Municipalities Partners for Climate Protection program as referenced in report CR-FM-10-007 dated April 6, 2010. Participation in this program includes developing corporate and community emissions inventories and action plans, and establishing greenhouse gas reduction targets. Over the past eight years, staff have been working internally and with community partners to effectively reduce emissions at both the corporate and community scale.

The ClimateActionWR is a collaborative that was established to develop a community-scale Climate Action Plan for Waterloo Region as part of the national Federation of Canadian Municipalities climate program. ClimateActionWR is led by Sustainable Waterloo Region and REEP Green Solutions and supported by the Cities of Cambridge, Kitchener, and Waterloo, and the Regional Municipality of Waterloo whom jointly fund ClimateActionWR.

In 2013, the City Councils of Cambridge, Kitchener and Waterloo, as well as Regional Council, unanimously passed recommendations to approve the Climate Action Plan and commit to a community GHG reduction target of 6% below 2010 levels by 2020 as reflected in report CR-FM-13-022, dated December 3, 2013. In 2015, FCM awarded the ClimateActionWR partners a Sustainable Communities award for their collaboration model and progressive action planning process.

On June 6, 2017 Regional Council received an update from ClimateActionWR entitled Our Progress, Our Path, which showed that overall greenhouse gas emissions decreased in Waterloo Region by approximately 5% between 2010 and 2015 as described in report PDL-CPL-17-14. At this time, Regional Council also approved the recommendation for Regional staff to continue to participate as a collaborative partner in the upcoming engagement process to establish a long-term community greenhouse gas reduction target for further consideration by Council in 2018. This report outlines the findings of the community consultation and recommends a long-term community GHG emission reduction target for Waterloo Region.

## **Rationale for Establishing a Long-Term GHG Emissions Reduction Target**

Scientific evidence indicates that if global average temperatures rise more than 2°C by the end of the century, subsequent severe weather events and catastrophic change will be irreversible. The United Nations Framework Convention on Climate Change found that global GHG emissions must be net-zero by 2060-2080 to keep temperatures from rising.

Canada, along with 175 other countries, has ratified the United Nations Paris Climate Accord, committing to an emissions reduction target of 80% below 1990 levels by 2050. The provincial government has set this same target. During March and April of 2018, the Cities of Cambridge, Kitchener, and Waterloo attained Council approval of the recommended reduction target of 80% by 2050. Through consultations, the Area Townships also voiced general support for the target. Other municipalities such as London, Durham, Peel, Hamilton, and Toronto, plus several others across Canada have also adopted this same target.

Community consultation as well as scientific evidence indicates that the broadly supported target of 80 % below 2010 levels by 2050 is also suitable for Waterloo Region. Alignment with local Area Municipal, provincial, federal and international targets will be important moving forward to show leadership and collaboration, and to be eligible for federal and provincial funding competitions which are prioritizing applications that meet or exceed deep emissions reduction targets.

### **Public Support**

A recent national survey by Abacus Data found the vast majority of voters believe action must be taken on climate change. The poll found 85 per cent of Canadians are convinced the consequences of not taking action on climate change will result in catastrophic, very severe or severe consequences. The online survey of 1,534 Canadians also indicated that 87 per cent people think there is plenty of evidence that emissions can be cut.

Locally, in August 2016 more than 300 people, including local members of parliament, attended a town hall meeting on national climate change planning and in support of the United Nations Paris Climate Accord. At that time, many residents encouraged staff to pursue local government approval of the Paris Climate Agreement target. During 2017, statistically representative polling conducted in Waterloo Region found that 89% of residents believe climate change is a significant issue.

Most recently, community consultations conducted by ClimateActionWR show strong support for an ambitious long-term emission reduction target. Between July and November, 2017 ClimateActionWR heard from more than 1800 people across Waterloo Region and found that 85% of participants indicated support for a reduction target of 50% - 100% by the year 2050.

### **Meeting the Reduction Target**

At first glance, an absolute GHG reduction of 80% below 2010 levels by 2050 seems like a

significant challenge. However, emissions from activities within communities are expected to decline substantially over the next several decades from the influence of macro economic and global market transitions along with wide scale policy direction.

Examples of these broader external influences include:

- carbon pricing that will favour renewable energy and support of cleaner lower emission industrial technological advancements;
- global investment in renewable energy generation has surpassed investment in non-renewable fossil fuels for five years in a row and this trend is expected to continue in the future;
- significant decreases in the cost of related energy technologies such as stationary batteries that can store energy from solar panels and other renewable energy sources;
- increased production of electric and hydrogen powered vehicles, and an increasing number of countries placing bans on the sale of vehicles that burn fossil fuels; and
- continually progressive changes to the building code related to energy efficiency in Ontario, other provinces and the United States which are expected to move towards requiring all new buildings to achieve net-zero emissions by about 2030.

The majority of the proposed 80% GHG emission reduction is expected to result from these kinds of macro-trends and external market forces. As these influences are occurring at international, national, and/or provincial scales, communities within Ontario will be on the same level playing field in terms of economic development and competitiveness.

Municipalities recognize that their ability to meet a municipal GHG emissions target is subject to a degree of uncertainty, due to future political changes at the provincial, national and global level. Over the next thirty-two years there will be many political changes as well as many opportunities to revisit progress made towards achieving the GHG reduction target and re-focus the action plan as necessary.

Locally, the Community Energy Investment Strategy for Waterloo Region, recently supported by all area municipalities, includes an estimated impact of implementing 22 local opportunities that will reduce GHG emissions by approximately 54% by 2041. The opportunities identified within the Strategy have the added benefit of an estimated 39% reduction in imported energy resources and over \$800 million annually in energy expenditures staying within the region through conservation and efficiency savings along with local energy generation serving the needs within Waterloo Region.

Progress is already being made within the Region to reduce GHG emissions through projects including promoting use of inter- and intra-regional public transit services, making the Region more electric vehicle (EV) friendly, supporting community car share and bike share programs, providing energy conservation incentive programs, supporting local energy generation

projects, achieving green building standards, and diverting organics waste.

In order to remain economically competitive in a transitioning economy, Waterloo Region needs to embrace local opportunities to reduce GHG emissions and show leadership to help gain market share in the rapidly expanding clean tech sector. From an economic standpoint, the global clean tech sector is expected to triple in value between 2014 and 2020, reaching \$3 trillion. An aggressive emission reduction target makes a clear statement to support clean tech growth and can be used to help attract investment in progressive market-based solutions.

Achieving an ambitious target will bring many additional benefits to the community. Policies and investments that support additional emissions reductions, in areas like local energy investment, transportation, and land use planning go beyond the fight against climate change. Investment in local energy brings economic benefits and adds resiliency to our energy system. Reduced emissions improves air quality and other health outcomes. Building more liveable, walkable communities improves quality of life for local citizens, and makes the community a more attractive location for businesses and the employees that drive them forward.

### **Next Steps**

Pending Council's endorsement of the target ClimateActionWR, area municipalities and community partners plan to follow a backcasting action planning approach to meet the target. This approach begins with identifying a goal and is followed by a series of shorter-term incremental plans that work toward achieving that goal. Next steps will include a process to design the next Climate Action Plan. This will build on the work completed within the Community Energy Investment Strategy, which identifies the impact of a number of energy and emission actions out to the year 2041. The process will also further engage local stakeholders to achieve community ownership of the plan and its implementation. Staff will report back to Council on the progress as collaborative work between the partners continues.

### **Area Municipal Consultation/Coordination**

Staff at the Region and Area Municipalities have worked collaboratively with ClimateActionWR in the preparation of this report.

### **Corporate Strategic Plan**

This report addresses the Focus Area Environment and Sustainable Growth within the Region's Corporate Strategic Plan specifically with respect to Strategic Objective 3.3 Enhance efforts to improve air quality and Action 3.3.2 Work with local stakeholders to continue to reduce emissions of greenhouse gases (GHGs) at a Community Scale and consider establishing a long-term GHG reduction target.

## **Financial Implications**

The Region of Waterloo's contribution to this project is \$108,000 total for the period 2018-2021 or 25.2% of the budgeted \$429,000 project costs over these years. The Cities of Cambridge, Kitchener and Waterloo are contributing \$321,000 to this initiative during this same period or 74.8% of the project's total budget. The combined budget for this project, Community Sustainability 22036, was approved within the 2018 Community Planning Capital Program to be funded from the Community Planning Capital Reserve, and is being administered by the Region of Waterloo so that all project expenditures flow out of this account. This budget is committed to the ClimateActionWR initiative for overall plan management, which includes preparing and delivering all public communications and events, meeting facilitation and progress reporting. Collaborative agreements which address this cost-sharing arrangement, as well as governance, are in place until 2021 when reporting on the 2020 reduction target concludes.

Implementation of specific opportunities identified within the ClimateAction WR plans that would directly involve the Region will be subject to the normal budget and project approval process. Staff are currently exploring funding opportunities, such as the new federal Low Carbon Economy Challenge fund, in collaboration with the project partners, to help support implementation of the related Community Energy Investment Strategy initiative.

## **Other Department Consultations/Concurrence**

Staff in Treasury Services were consulted in the preparation of this report.

## **Attachments**

Nil

**Prepared By: David Roewade**, Sustainability Specialist

**Approved By: Rod Regier**, Commissioner, Planning Development and Legislative Services