November 6, 2015

The Honourable Glen Murray
Minister of the Environment and Climate Change
Public Information Centre
2nd Floor, Macdonald Block
M2-22 – 900 Bay Street
Toronto ON M7A 1N3

Our File #000

Honourable Sir, please be advised the Joint Finance & Administration and Works Committees of Regional Council considered the above matter and at a meeting held on November 4, 2015 Council adopted the following recommendations of the Committee:

“A) That staff continue in its collaborative efforts with the Association of Municipalities of Ontario, the Ontario Waste Management Association and other key stakeholders to ensure the broader municipal interests are represented in the design and implementation of the Province’s proposed cap-and-trade program; and

B) That Report #2015-J-52 be forwarded to all local MPPs requesting that they review, comment and identify the actions they will take to advance the Region’s concerns to the government; and that the report also be forwarded to local Regional municipalities; the Minister and Deputy Minister of the Environment and Climate Change; the Environmental Commissioner of Ontario; the Association of Municipalities of Ontario; and, the Ontario Waste Management Association.”

As directed, please find attached a copy of Report #2015-J-52 from the Commissioner of Finance and the Commissioner of Works for your information.

D. A. Wilcox, MPA, CMO, CMM III
Regional Clerk/Director of Legislative Services

If this information is required in an accessible format, please contact the Accessibility Co-ordinator at 1-800-372-1102 ext. 2009.
c: P. Evans, Deputy Minister of the Environment and Climate Change
J. Dickson, MPP, Ajax/Pickering
G. Anderson, MPP, Durham
L. Scott, MPP, Haliburton/Kawartha Lakes/Brock
J. French, MPP, Oshawa
The Honourable T. MacCharles, MPP, Pickering/Scarborough East
E. Schwartzel, Environmental Commissioner of Ontario (Acting)
P. Vanini, Executive Director, Association of Municipalities of Ontario
N. Lee, Chairman of the Board, Ontario Waste Management Association
M. deRond, Clerk, Town of Ajax
T. Gettinby, CAO/Clerk, Township of Brock
A. Greentree, Clerk, Municipality of Clarington
S. Kranc, Clerk, City of Oshawa
D. Shields, Clerk, City of Pickering
K. Coates, Interim Clerk, Township of Scugog
D. Leroux, Clerk, Township of Uxbridge
C. Harris, Clerk, Town of Whitby
R.J. Clapp, Commissioner of Finance
C. Curtis, Commissioner of Works
The Regional Municipality of Durham
Report

To: The Joint Finance and Administration and Works Committee
From: Commissioners of Finance and Works
Report: #2015-J-52
Date: October 22, 2015

Subject:
Update Regarding Ontario's Proposed Cap and Trade Program for Greenhouse Gas Emissions and Potential Impacts on the Solid Waste Management Sector

Recommendations:
That the Joint Finance and Administration and Works Committee recommends to Regional Council that:

A) Staff continue in its collaborative efforts with the Association of Municipalities of Ontario, the Ontario Waste Management Association and other key stakeholders to ensure that broader municipal interests are represented in the design and implementation of the Province's proposed cap-and-trade program; and

B) That this report be forwarded to local Regional municipalities, the Ministry of the Environment and Climate Change, the Association of Municipalities in Ontario and the Ontario Waste Management Association.

Report:
1. Purpose

1.1 This report provides an update with respect to the Province's proposed cap and trade program for greenhouse gas (GHG) emissions that may affect all sectors of the Ontario economy. Consultations undertaken to-date with the Province around the proposed program are specifically for the solid waste management sector. The report also details staff concerns and comments based on information received to-date from the Ministry of the Environment and Climate Change (MOECC). (Regional staff correspondence from September 17 and 18, 2015 enclosed herein as Attachments 1 and 2).
2. **Background**

2.1 The MOECC released its Climate Change Discussion Paper 2015 earlier this year. Report 2015-J-20 provided the Region’s response to the Discussion Paper in support of a proactive, Ontario-wide approach to climate change mitigation and adaptation. The Region also advocated for collaboration between provincial and municipal governments and dedicated funding to assist local governments with adapting to climate change.

2.2 On April 13, 2015 Ontario Premier Kathleen Wynne announced the government’s intention to establish a cap and trade system for carbon emissions in Ontario. Cap and trade systems impose a hard ceiling on the carbon emissions allowed in each sector of the economy and provide an economic incentive for emitters to invest in lower carbon technologies. Ontario intends to link its system with those in Quebec and California as part of the Western Climate Initiative.

2.3 Cap and trade programs impose a mandatory cap on GHG emissions that regulated sectors and industries are permitted to produce within a defined compliance period. The intent of the program, as the overall cap is lowered, is to provide an economic incentive for emitters to invest in lower carbon technologies while providing flexibility to how emitters are to achieve compliance, either through lowering of emissions or acquiring and/or holding sufficient allowances to cover emissions produced. While the value of allowances can be impacted by a number of factors generally, as the overall cap is lowered, emission allowances become less available and, thus, relatively more valuable and more costly to acquire, providing the economic incentive for investment in lower carbon alternatives.

2.4 Ontario’s proposed cap and trade system is intended to be economy-wide to provide the maximum environmental benefit and support market stability with regulated sectors to include process and combustion emitters: electricity generators importers and distributors, fuel distributors and importers, as well as natural gas distributors. While the range of regulated sectors and emitters are still to be finalized by the Province, based on initial consultations with the MOECC, the solid waste management sector is being proposed as a regulated sector under the proposed program.

3. **Solid Waste Management Sector and Carbon Emissions**

3.1 In general, the re-use or recycling of materials is considered less energy-intensive and, therefore, less carbon-intensive than the production of comparable materials from virgin sources. The focus of integrated solid waste management systems is to move materials out of the residual waste stream and into re-use or recycling/composting options where municipalities provide a variety of programs for residents to minimize residual waste. Programs such as re-use, curbside blue box recycling, organics diversion for composting, resident education and energy recovery from residual waste have resulted in significant reductions in carbon emissions by minimizing the amount of waste sent to landfills.
3.2 Regional staff have indicated to the MOECC that including the solid waste management sector and Energy-from-Waste (EFW) technology options under the cap may adversely impact waste diversion goals and limit the options available to municipal governments in reducing net carbon emissions.

3.3 Municipal EFW options are recognized internationally as effective carbon mitigation tools:
- EFW technology which produces electricity for the grid may serve to offset alternative, higher GHG-emitting fossil fuel combustion sources that otherwise would have accommodated system demand requirements;
- EFW technology produces lower overall carbon emissions relative to landfiling options\(^1\) and;
- EFW-related processes assist in the recovery of additional metals for recycling which further reduces carbon emissions associated with the production of metals from raw materials.

3.4 The provincial government has emphasized a role for waste disposal as an approach to reducing carbon emissions and generating electricity. Incineration of municipal waste is recognized as a mitigating factor in climate change. In April 2015, the Minister of Energy issued a directive to the Independent Electricity System Operator (IESO) seeking 75 MW of electricity from new EFW facilities in Ontario under a Standard Offer Program (SOP)\(^2\). Further, the MOECC is implementing the Alternative Low-Carbon Fuels regulation (O. Reg. 79/15) that allows certain fuel intensive industries such as cement and steel to combust post-diversion municipal residues as a low carbon alternative fuel.

3.5 Landfilling of residual municipal wastes results in carbon emissions from transporting waste over long distances and from the fugitive methane emissions which are common at all landfills. As currently understood, the MOECC may include EFW facilities under the proposed cap while excluding fugitive emissions of methane from landfills. The requirement for EFW facilities to secure emission credits under a cap and trade system increases the cost of processing a tonne of waste at the Durham York Energy Centre and creates a contradictory incentive to increase landfilling which actually increases carbon emissions from residual waste management and decreases the recovery of energy and metals from municipal solid waste.

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\(^1\) According to the US Environmental Protection Agency, EFW technology produces lower overall carbon emissions relative to landfiling by approximately one tonne of carbon dioxide equivalent for every tonne of waste processed. For Ontario, this value is estimated at approximately 0.8 tonnes of carbon dioxide equivalent, due in large part to the relatively lower emission intensity of electricity generation sources across the Province (i.e. hydroelectric, nuclear).

\(^2\) As the IESO has posted draft EFW SOP documentation for public comment, it is anticipated that the procurement process will be launched in late-2015.
3.6 The Province of Quebec, the Regional Greenhouse Gas Initiative (RGGI), the European Union Emissions Trading System and the Kyoto Clean Development Mechanism all exempt the solid waste management sector under their cap and trade systems. California initially included EFW under the cap in that state but has since exempted EFW facilities with a planned extension through 2017. Ontario should consider following the lead of these other jurisdictions and ensuring consistency in the design of the program, particularly since it is Ontario's intention to partner with Quebec and California.

3.7 Correspondence to the MOECC enclosed herein as Attachments 1 and 2 outlines staff concerns with recommendations for the Province to not only consider EFW technology options as an effective mitigation tool to reduce GHG emissions but the function of integrated waste management systems in achieving net GHG emission reductions. Full exemption of the solid waste management sector is recommended.

4. Ontario Waste Management Association Cap and Trade Research

4.1 The Ontario Waste Management Association (OWMA), which consists of both private and public sector representatives, has initiated a research study on carbon emission reductions associated with re-use, recycling and enhanced waste disposal activities including EFW. The results of the study, currently anticipated for December 2015, will assist municipalities in better assessing the challenges and opportunities available under the Province's proposed cap and trade policy through the establishment of a GHG emissions baseline, outline of various cap and trade program frameworks including how exemptions and emissions offsets work, recommendations on how Ontario could better recognize waste reduction, recycling and composting, and establish a tool to analyse data on the potential impacts of GHG emissions savings based on the adoption of given protocols.

4.2 The OWMA board has approved funding of one half of the estimated cost of the waste management study. OWMA has asked municipalities to contribute to the remaining costs since the entire waste management sector will benefit from the results. Subject to the final cost of the report and the proportional share to municipalities, the Region will pay a proportional share of the municipal costs.

5. Position of the Association of Municipalities of Ontario

5.1 While the Province has acknowledged the contributions and actions undertaken by municipalities in preparing for, and responding to climate change, the Association of Municipalities of Ontario (AMO) has been involved in consultations with the Province to ensure municipal interests and concerns continue to be considered as part of the provincial Climate Change Strategy.

5.2 AMO's Climate Change Task Force, in recognizing the significant role and influence that municipalities have with regards to the provision of key services and critical infrastructure, has outlined specific recommendations to the Province that would...
assist municipalities moving forward, in the form of resources, finance and other essential support.

5.3 As presented to the AMO Board through the September 2015 meeting, the AMO Climate Change Task Force has put forward recommendations related to climate change adaptation and mitigation efforts, issues of rural and northern concern, in addition to items of municipal importance relating to the proposed cap and trade program. Specific to the latter, the AMO Climate Change Task Force has outlined the following recommendations:

- Additional predictable funding is required for municipalities to allow for the continued investment in key infrastructure which can serve to mitigate GHG emissions, including but not limited to, transit and active transportation infrastructure as well as green buildings. More specifically, dedicated revenues to support municipal infrastructure requirements should come through cap and trade program revenues and;

- The proposed cap and trade program and climate change strategy and plan should provide credit for early action in achieving GHG emissions reductions (i.e. emission offsets) prior to program implementation which should include municipal projects and initiatives.

5.4 The recommendations put forward by the AMO Climate Change Task Force have been put forward to the MOECC for further consideration in the development of the provincial strategy. Staff will continue to monitor developments and activities undertaken by AMO and update Regional Council accordingly.

6. Financial Implications

6.1 Financial impacts to the Region as a result of the Province’s proposed cap and trade system are fully dependent on how the Province ultimately structures the program including how solid waste management, including EFW, and other municipal activities are regulated or are indirectly impacted under the system.

6.2 As noted in staff Report #2015-F-33 and Report #2015-J-20, the Region has considerable interest in better understanding potential financial, accounting and reporting-related impacts from the proposed program. Such areas of interest, aside from potential cost impacts include, but are not limited to, reporting requirements, accounting, and emissions baseline and inventory development, consideration of additional complementary GHG emission reduction programs and policies, recognition of carbon offsets and possible recognition of early-action initiatives.

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3 The AMO Climate Change Task Force's comments and recommendations can be found at: http://www.amo.on.ca/AMO-PDFs/Reports/2015/Climate-Change-Submission-2015-09-15-RPT.aspx
6.3 Staff will continue to consult with the Province around program design and also work with AMO and the OWMA to ensure municipal interests are appropriately represented. Regional staff are working collaboratively to assess the broader corporate implications as well as detailed technical, operational and financial impacts across program areas. Implications to Regional programs will be reported to Regional Council as information becomes available, including through pending Servicing and Financing Studies, where applicable.

7. Conclusions and Recommendations

7.1 To-date, Regional staff have participated in consultations with the MOECC as part of the Province’s proposed cap and trade program design. Based on information received from the Ministry, program design is proposed to include portions of the solid waste management sector in the program.

7.2 Ontario’s proposed cap and trade system, as currently contemplated, would include waste management systems and EFW under the cap while excluding fugitive methane emissions from landfills.

7.3 Regional staff will report back to Regional Council on potential implications related to the proposed cap and trade system as more information becomes available. As noted, specific program impacts will be evaluated and considered further by department staff through future reporting including annual Servicing and Financing Studies across major program areas.

8. Attachments

Attachment #1: Staff letter to Craig Golding, Manager (Acting), Cap and Trade
Attachment #2: Staff letter to Heather Pearson, Director, Air Policy Instruments and Program Design Branch
Respectfully submitted,

R. J. Clapp, CPA, CA
Commissioner of Finance

C. R. Curtis, P.Eng., MBA
Commissioner of Works

Recommended for Presentation to Committee

G. H. Cubitt, MSW
Chief Administrative Officer
Sent via standard mail and email (craig.golding2@ontario.ca)

September 17, 2015

Craig Golding, Manager (Acting), Cap and Trade
Air Policy Instruments and Program Design Branch
Ministry of the Environment and Climate Change
77 Wellesley Street West
10th Floor, Ferguson Block
Toronto, ON M7A 2T5

Dear Mr. Golding:

RE: Ministry of the Environment and Climate Change –
Development of the New Ontario Cap and Trade Program

Thank you for including municipal governments in the discussions regarding a cap and trade program for Ontario. For many years, the Regional Municipality of Durham (Region) has been working to reduce carbon emissions and climate change impacts on our residents.

As the majority of the proposed cap and trade program consultation process occurred over the summer period, there has been insufficient time and opportunity to fully understand the implications of the proposed legislation on our Region and adequately inform our Regional Council. Moreover, there is a concern that the design of the proposed cap and trade program, as currently envisioned, may result in unintended consequences that will inadvertently impact waste diversion and limit municipal government’s options in reducing greenhouse gas (GHG) emissions while sustainably providing and improving services to our residents.

In particular, we are concerned about the potential impacts of the proposed cap and trade program on our waste management system. We are extremely proud to have one of the most advanced solid waste management systems in Ontario with a 2014 diversion rate of 54%. In achieving that rate, we have implemented a fully integrated long-term waste management system, dependent on a variety of key programs, including curbside collection, multi-residential building collection, organics diversion, education programs, and energy recovery. This integrated system has achieved significant reductions in GHG emissions by keeping wastes out of landfills and diverting them to recycling, composting, and energy recovery.

If this information is required in an accessible format, please contact the Accessibility Co-ordinator at 1-800-372-1102 ext. 2009.
As we currently understand the intended design of the proposed framework, the Ministry of the Environment and Climate Change (MOECC) plans to include some waste management options (i.e. EFW) under the cap, but exclude others such as landfill. We believe that integrated waste systems should be wholly exempted as they are interrelated and should be viewed as such.

Ontario should follow the lead of Quebec, the Regional Greenhouse Gas Initiative (RGGI), the European Union Emissions Trading System, Kyoto Clean Development Mechanism, and the USEPA’s Clean Power Plan by exempting the entire solid waste management sector. California, which initially included the state’s three thermal waste-to-energy facilities in the cap, has passed a series of exemptions in order to rectify the inequity introduced by their initial inclusion. Ontario, by excluding the waste management sector at the onset of its Cap and Trade program, can learn from the challenges faced by California.

There can be significant carbon emission reductions in the solid waste management sector, but given the nature of the sector, there are more equitable policy mechanisms to address carbon emissions than a cap and trade program. Therefore, at this point we would like to request that the MOECC consider excluding all waste management systems from the cap and trade program which is consistent with programs established in other jurisdictions.

We look forward to working with the MOECC to ensure that we set the proper policies for the solid waste management sector and avoid any unintended consequences. We would like to request a meeting to discuss the above issues and provide science based facts and policy examples of jurisdictions that Ontario could examine to ensure the province, municipalities can address climate change with environmentally and economically effective policy options.

Sincerely,

Milka Januszkiewich, P.Eng., MASc., MBA
Director, Waste Management Services

c. H. E. Pearson, Director, Air Policy Instruments and Programs
Design Branch, MOECC
P. Veiga, Supervisor, Waste Operations, The Regional Municipality of Durham
September 17, 2015

Heather E. Pearson, Director,
Air Policy Instruments and Programs Design Branch
Ministry of the Environment and Climate Change
77 Wellesley Street West
10th Floor, Ferguson Block
Toronto, ON M7A 2T5

Dear Ms. Pearson:

RE: Ministry of the Environment and Climate Change – Development of the New Ontario Cap and Trade Program

We appreciate the chance to participate in the consultation process that the Ministry of the Environment and Climate Change (MOECC) has undertaken in developing Ontario's proposed cap and trade program.

To-date, the Regional Municipality of Durham (Durham) has been a leader in reducing carbon emissions from our solid waste management system through efforts to maximize residential recycling and composting and to divert waste resources from landfill. We are concerned that the proposed cap and trade program, if not structured properly, may impact Durham's efforts to divert our waste and, in turn, reduce carbon emissions.

We are extremely proud to have one of the most advanced solid waste management systems in Ontario with 2014 diversion rates of 54%. To achieve these high diversion rates, Durham developed a fully integrated long-term Waste Management Strategy Plan. This plan has effectively managed our residential wastes today, and is planned to do so into the future in an environmentally and economically sustainable way.

After extensive study, Durham developed a plan to manage residual wastes locally and cease reliance on landfill disposal methods. Durham has invested significantly in state-of-the-art facilities for recycling, composting, and energy—from-waste (EFW). In 2006, Councils from both the Regional Municipality of Durham and the Regional Municipality of York (York) endorsed EFW technology as the best long-term, local, and sustainable option for final disposal of their residential waste that remains after maximizing waste diversion programs – reducing,
reusing, recycling, and composting. To address the growing public environmental concerns with landfills, as well as the limited options for new landfill locations in Ontario, Durham developed an environmentally and economically sustainable alternative to landfilling that significantly reduces carbon emissions.

For this, Durham and York began an extensive process to construct the Durham York Energy Centre (DYEC). After a very rigorous environmental assessment process, in June 2011, the Ontario Ministry of the Environment issued the Certificate of Approval for the DYEC project which allowed for construction, and now operation, of the jointly owned EFW facility in the Clarington Business Park, in Durham. The DYEC is a state-of-the-art EFW facility that safely processes 140,000 tonnes per year of residential waste remaining subsequent to maximizing diversion, and generates up to 17.5 megawatts (MW) of clean energy.

Benefits of EFW to Mitigate Greenhouse Gas (GHG)
EFW is widely recognized internationally, including by the United States Environmental Protection Agency (USEPA), European Union (EU), the Intergovernmental Panel on Climate Change (IPCC), the World Economic forum, and the United Nations (UN) as a source of GHG mitigation. According to the USEPA, based on national averages, EFW technology reduces GHG emissions by approximately one tonne of carbon dioxide equivalents (CO2e) for every tonne of waste processed relative to landfilling.

In Ontario, the reduction of carbon emissions is 0.8 metric tonnes for every tonne processed because of the lower carbon intensity electricity grid. These reductions result from prevention of uncollected fugitive emissions of landfill methane, a GHG that is 28 to 34 times as potent as carbon dioxide over 100 years (Source IPCC: http://www.climatechange2013.org/images/uploads/WGIAR5_WGI_12Doc2b_FinalDraft_All.pdf); avoiding fossil fuel combustion associated with grid electrical production; and, the recovery of ferrous and non-ferrous metals for recycling, which reduces the GHG emissions associated with the production of these metals from raw materials. In fact, just this month, the USEPA released its new Clean Power Plan, and it includes EFW as a mitigation tool of which US states can take advantage to meet the new strict requirements.

The Ontario government has also recognized EFW as a mitigating factor in climate change. The Alternative Low-Carbon Fuels regulation (O. Reg. 79/15) was issued earlier this year making it easier for certain
industries to combust post-diversion municipal waste as an alternative fuel to coal or coke. Further, in April 2015, the Minister of Energy issued a directive seeking 75 MW of electricity from new EFW facilities.

**Cap Issue: Landfill and EFW**

As we currently understand the intended design of Ontario's proposed cap and trade program, the MOECC may include EFW facilities such as the DYEC under the cap, while excluding fugitive emissions of methane from landfills. This will create an uneven playing field across solid waste management options which are out of step with the goal of reducing GHG emissions. As it currently stands, the requirement to secure allowances for the DYEC will penalize its use by creating an economic disincentive relative to landfilling. The processing of each tonne of municipal solid waste at the DYEC will become more expensive as the cap is reduced, creating a perverse incentive to increased landfilling, resulting in increased GHG emissions. As it is currently envisioned, the program will result in leakage of GHG emissions from a capped portion of the waste management sector, EFW, to an uncapped portion of the same sector, landfills.

Ontario should follow the lead of Quebec, the Regional Greenhouse Gas Initiative (RGGI), the EU Emissions Trading System, Kyoto Clean Development Mechanism, and the USEPA's Clean Power Plan by exempting the entire solid waste management sector.

In addition to following the best climate science when it comes to solid waste management, the exemption would also be very limited. EFW represents slightly more than 2% of Ontario's waste management disposal capacity because there are currently only two EFW facilities in the Province. This exemption would also be in line with the Minister of Energy's 2015 directive to the Independent Electricity System Operator to set a procurement of 75 MW's of new EFW.

Significant GHG reductions are possible in the waste management sector, but there are more effective policy tools to achieve them. In fact, it has been the proactive waste policies of the EU, including the Landfill Directive and Packaging Waste Directive, and not the cap and trade program, which have been an overwhelming success in Europe's efforts to reduce GHG emissions. Through these policies, the waste sector has achieved the largest relative reduction (34%) of any sector in the EU.

Therefore, at this point in the development of the cap & trade program, we would like to request that the MOECC exclude EFW systems (and
solid waste management systems) from the program and keep consistent with programs established in other jurisdictions and Ontario's policy direction for a low carbon economy.

We look forward to continuing to work with the government on the best policies to achieve carbon reductions from the waste management sector in environmentally and economically sustainable ways. We would be happy to discuss these policies and options in person.

Sincerely,

Mirek Januszkiewicz, P.Eng., MASc., MBA
Director, Waste Management Services

c. R. A. Anderson, Regional Chair and CEO, The Regional Municipality of Durham
   G. H. Cubitt, CAO, The Regional Municipality of Durham
   C. R. Curtis, Commissioner of Works, The Regional Municipality of Durham
   R. J. Clapp, Commissioner of Finance, The Regional Municipality of Durham
   C. Golding, Manager (Acting), Cap and Trade, MOECC
   P. Veiga, Supervisor, Waste Operations, The Regional Municipality of Durham