

REPORT NO. 354 of the
ENVIRONMENT, TRANSPORTATION & PUBLIC SAFETY
STANDING COMMITTEE
of its meeting held February 17, 2016

Present: Councillor Chris Holt
Councillor Bill Marra (Chair)
Councillor Hilary Payne
Councillor Paul Borrelli

Absent: Councillor Fred Francis

That the following recommendations of the Environment, Transportation and Public Safety Standing Committee **BE APPROVED**:

Moved by Councillor Holt, seconded by Councillor Payne,
That the report of the City Engineer dated December 11, 2015 to provide an update on Provincial Climate Change Initiatives and the possible role of municipalities **BE RECEIVED** for information.

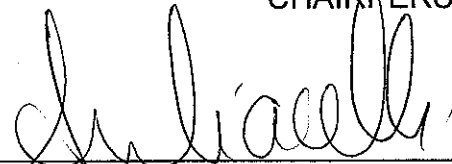
Carried.

S 67/2015 EI/10822

Clerk's Note: The report of the City Engineer dated December 11, 2015 entitled "*Update of Provincial Climate Change Initiatives*" is **attached** as background information.

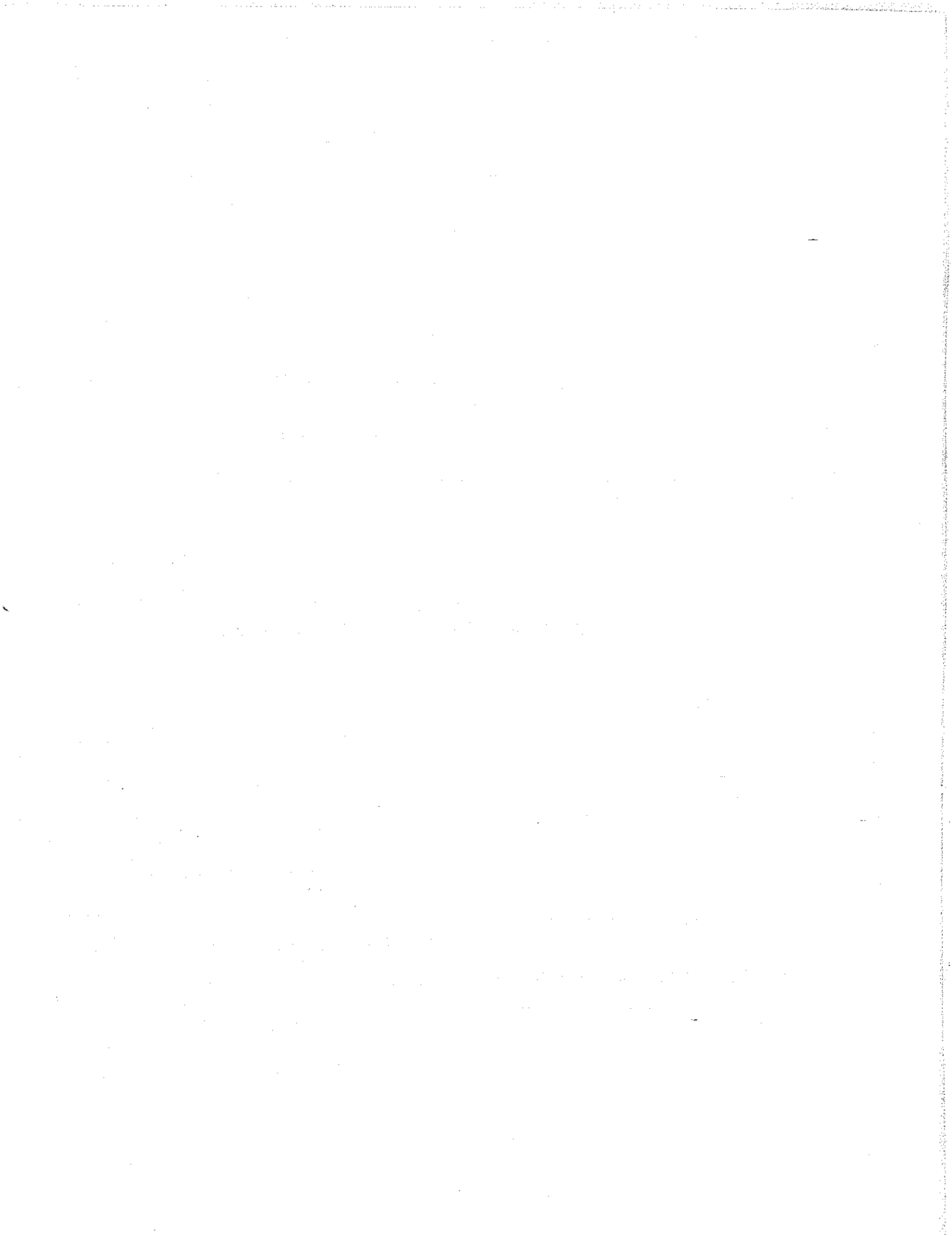


CHAIRPERSON



SUPERVISOR OF COUNCIL SERVICES

NOTIFICATION:	
NAME	CONTACT INFORMATION
WECEC membership	On file





Pollution Control

MISSION STATEMENT

"Our City is built on relationships – between citizens and their government, businesses and public institutions, city and region – all interconnected, mutually supportive, and focused on the brightest future we can create together"

REPORT #: S 67/2015	Report Date: 12/11/2015
Author's Contact: Karina Richters Supervisor, Environmental Sustainability and Climate Change (519) 253-7111 x. 3226 krichters@citywindsor.ca	Date to Council: February 17, 2016
	Clerk's File #: EV/10822

To: Mayor and Members of City Council

Subject: Update of Provincial Climate Change Initiatives - City Wide

RECOMMENDATION:

To provide an update on Provincial Climate Change Initiatives and the possible role of municipalities.

EXECUTIVE SUMMARY: N/A

BACKGROUND:

In November 2015, the Province of Ontario's Ministry of Environment and Climate Change (MOECC) released two reports outlining the government's commitment to tackling climate change.

The first report is the Ontario's Climate Change Strategy that sets out Ontario's vision for combating climate change and achieving the greenhouse gas emissions reduction target of 80 per cent below 1990 levels by 2050.

The second document was seeking comments from Stakeholders on the proposed Cap and Trade Program. The Province intends to table a draft regulatory proposal in early 2016 with an implementation date of 2017.

Ontario will not be able to achieve its 2020, 2030, or 2050 GHG reduction targets without concerted action in and by municipalities as the majority of Ontario's

greenhouse gas (GHG) emissions (60%) originate in cities, especially the larger urban/suburban areas. Approximately half of these emissions are associated with buildings, 45 per cent from transportation and the balance from waste.

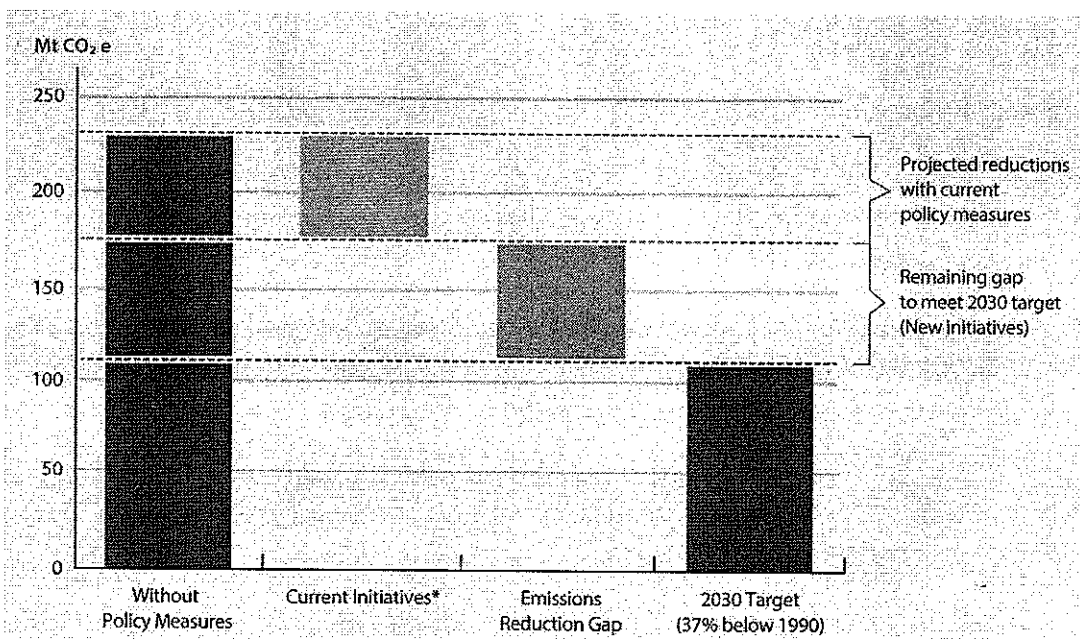
The effects of climate change will also be felt significantly by municipalities. The effects on infrastructure are apparent and costly: roads that buckle in severe heat or degrade quicker as freeze/thaw cycles increase and sewers that overflow or back-up causing basement flooding during severe rain events. Municipalities will need to adapt infrastructure to mitigate the effects of the changing climate.

DISCUSSION:

In 2007, the Province of Ontario set an ambitious goal to reduce Ontario’s greenhouse gas emissions by six per cent below 1990 levels by 2014. The province met this goal by taking bold steps, including increasing emission free renewable energy and supporting electric/hybrid-vehicles. However, the most significant action was the closing of all coal-fired electricity-generating stations. This remains the largest greenhouse gas reduction action implemented to date in North America.

The Province has set many interim GHG reduction targets (15 and 37 per cent below 1990 levels by 2020 and 2030, respectively) with an overall goal of achieving reductions of 80 percent below 1990 levels by 2050. The figure below outlines what further actions are needed to reach the interim goal set by 2030.

Figure 1: 2030 Ontario GHG Emission Reductions with Current Initiatives*



Source: MOECC based on 2014 Ontario Climate Change Update modelling (taken from the Ontario Climate Change Strategy)

*Current initiatives do not include Ontario's proposed cap and trade program.

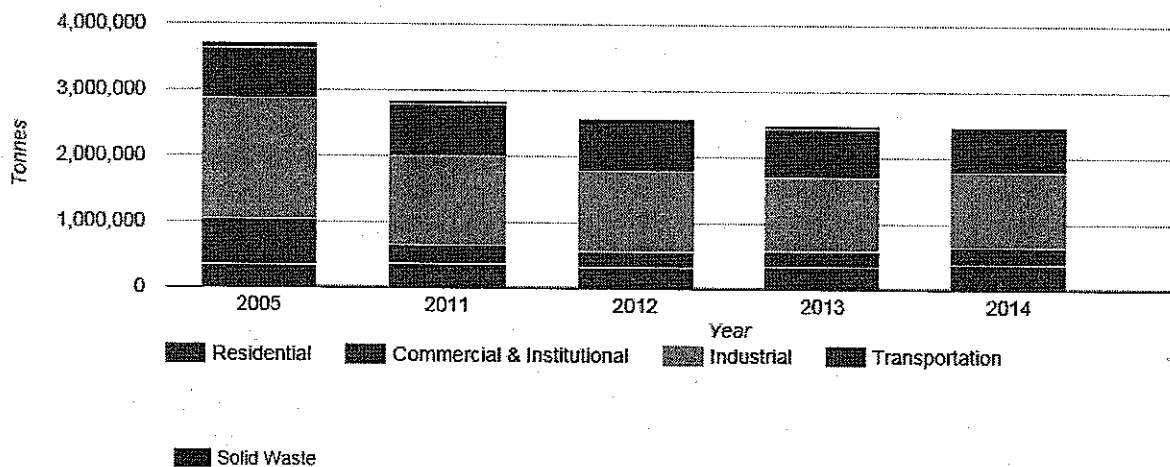
Ontario's Climate Change Strategy sets out the transformative change required to reduce greenhouse gas emissions by 80 per cent below 1990. Following consultation and input from Ontarians, the strategy highlights five areas of transformation. Each area includes a list of actions required to achieve the goals. The five areas, with actions that may require municipal involvement include:

- 1) A prosperous low-carbon economy with world-leading innovation, science and technology
 - Develop new ways to reduce greenhouse gas emissions through fuel switching, energy reduction and other measures that foster innovation.
 - Build green infrastructure to restore ecosystems, reduce atmospheric carbon and protect and expand carbon sinks.
- 2) Government collaboration and leadership
 - Introduce climate legislation that, if passed, would establish a long-term framework for action.
 - Integrate climate change mitigation and adaptation considerations into government decision-making and infrastructure planning.
- 3) A resource-efficient, high productivity society
 - Review and make recommendations regarding existing policies and programs that support fossil fuel use and fossil fuel intensive technologies.
 - Ontario will look at removing existing initiatives that support fossil fuel use, which could free up funds to better support sustainable development and clean technologies and energy.
 - Implement a resource recovery and waste reduction framework to assist Ontario's shift to a circular economy.
- 4) Reducing greenhouse gas emissions across sectors
 - Reduce emissions from transportation by promoting the uptake of zero emission and plug-in hybrid vehicles.
 - Develop a coordinated approach to reduce emissions from new and existing building.
 - Establish reducing greenhouse gas emissions as an important factor in transportation and land use planning initiatives.
- 5) Adapting and thriving in a changing climate
 - Integrate climate change adaptation considerations in infrastructure decision-making.

In 2016, the Province will release a detailed five-year action plan with specific commitments to meet the near-term 2020 emissions reduction target, and establish the framework necessary to meet our targets for 2030 and 2050.

The majority of Ontario's greenhouse gas (GHG) emissions (60%) originate in cities. In 2005, The City of Windsor completed a Community baseline inventory of GHG emissions. This inventory has been updated every year since 2011. As noted above, the largest drop in GHG emissions can be attributed to the closure of coal-fired electricity generating facilities. In 2005, 746,036 tonnes of GHG emissions were attributed to electricity use in our community, in 2014 it only accounted for 196,097 tonnes. The largest source of GHG emissions now is attributed to natural gas use followed by transportation fuels.

Figure 2: Community GHG Emission



The City of Windsor is currently undertaking the development of a Corporate Climate Change Mitigation Plan and a Community Energy Plan (CR181/2015). The Community Energy Plan is a comprehensive long-term plan to improve energy efficiency, reduce energy consumption and greenhouse gas emissions, foster green energy solutions and support economic development. The City of Windsor has received funding support from the Province of Ontario.

This plan will be developed through extensive consultation with the community. Part of the plan will include setting emission reduction targets for both the Corporation and the Community.

The next significant action expected by the Province of Ontario will be the implementation of the Cap and Trade program. Ontario's cap and trade system will set a hard ceiling on the amount of pollution allowed by most sources in the province, and this ceiling will be lowered over time to ensure emissions continue to fall.

program will cover a wide variety of sectors, including gasoline and natural gas distribution.

The Province sees the cap and trade as the primary tool for achieving Ontario's 2020 target. The cap and trade program will link with those in Quebec and California and is set to start in 2017.

The Province has attempted to design the cap and trade program in a way that will support households and business by;

- Promoting productivity and innovation to transition Ontario households and businesses to a low-carbon economy while reducing the risk of carbon leakage (e.g. loss of production to jurisdictions without a cost on carbon),
- Reinvesting cap and trade auction proceeds in complementary measures that can support the reduction of GHG emissions sufficient to meet the government's targets.
- Will reduce the overall cost to households and business by investing in energy retrofits and low carbon transportation options.

Under the current proposed program, the Corporation of the City of Windsor will not directly fall under the cap and trade program. However, the energy resources (natural gas, transportation fuels, etc.) that are purchased will be captured in the program. It is expected that those costs will be downloaded to the consumer. It is estimated that the cost of carbon in 2017 will be approximately \$16/tonne. Based on 2014 emission intensities, the City could expect an increased cost of approximately 3.0 cents/m³ natural gas and an increase of approximately 3.8 cents/L on gasoline and 4.3 cents on diesel.

On the other hand, the Corporation may also be able to take advantage of Offset Credits. Offset credits recognize real, additional, enforceable, verifiable, permanent reductions that occur outside the cap (i.e. in sectors without a compliance obligations). Examples of possible offsets may include the diversion of organics from landfill through a green bin program, or the capture methane gas at various unregulated sites.

The Climate Change Strategy also touches on Climate Change Adaptation. The province will integrate climate change adaptation considerations into government decision-making and infrastructure planning. For example, upon proclamation of the Infrastructure for Jobs and Prosperity act, the province and the broader public sector would be required to consider environmental impacts and climate change resiliency in making infrastructure decisions. This will also guide the province's next long-term infrastructure plan and support Ontario's historic investment of \$130 billion in public infrastructure over 10 years.

In 2012, the City of Windsor completed the Corporate Climate Change Adaptation plan. A significant number of actions within the plan have been completed and work continues to address those actions not completed. In addition, climate change impacts/risks are being addressed through the asset management framework. These corporate actions have helped prepare the City of Windsor to be ready for Provincial actions on adaptation.

RISK ANALYSIS:

There are no critical or significant risks associated with this information report.

The Climate Change Adaptation Plan was drafted to help mitigate risks associated with possible Climate Change Impacts. The Corporate Energy Management Plan along with the development of the Corporate Climate Change Mitigation Plan and Community Energy Plan will highlight additional action items to reduce energy consumption (and cost) and associate GHG emissions.

FINANCIAL MATTERS:

As mentioned above, there are expected cost increases with the implementation of the cap and trade program. As the cost of carbon is not known yet, these estimates are based on historic quantities and the cost of carbon at \$16/tonne.

Energy resource	Price Increase	2014 Quantities	Estimate increase
Natural Gas	3.0 ¢/m ³	4,936,541 m ³	\$148,096
Gasoline	3.8 ¢/m ³	648,668 L	\$24,649
Diesel	4.3 ¢/m ³	3,456,203 L	\$148,617

Any actions completed on the Corporate Energy Management Plan and the Greening of the Fleet Plan will help mitigate some of these costs.

CONSULTATIONS:

Sergio Grando – Manager of Energy Initiatives

Angela Marazita – Fleet Manager

Michael Dennis – Financial Planning Administrator

Melissa Osborne – Senior Manager of Asset Planning

Pat Delmore – Transit Windsor

CONCLUSION:

The Province of Ontario has committed to reducing GHG emissions while also building a more climate resilient province. In 2016, the Province is set to release its five-year action plan including specific commitments to meet the 2020 emissions reduction target. The current Climate Change Strategy and the proposed Cap and Trade documents provide insight on what to expect within the action plan. It is likely that a number of the action items will involve municipal collaboration.

APPENDICES:

