

Effective Date July 1, 2014



## Energy Conservation and Demand Management Measures



Decreasing Green House Gasses "1 switch at a time"!!!!

# GREEN HOUSE GAS PLAN

## EXECUTIVE SUMMARY

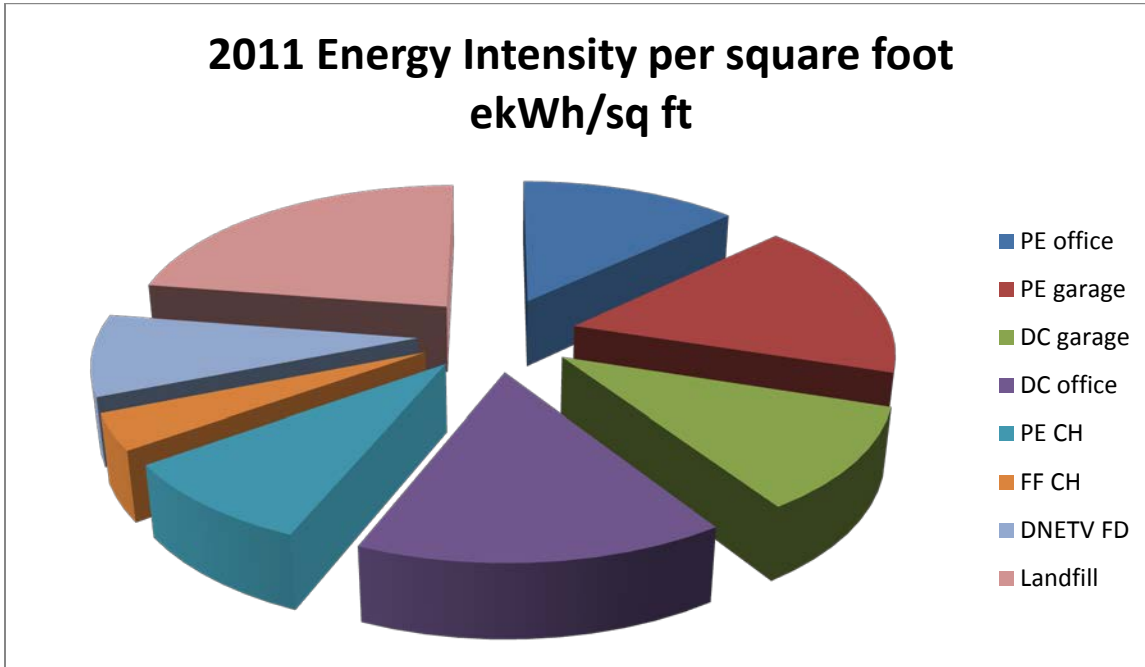
This plan is designed to demonstrate municipal compliance with Ontario Regulation 397/11, which is under the “The Green Energy Act 2009”. The Township recognizes the need to prevent the wasting of fossil fuels, and making sure that when these fuels are used; that the maximum efficiency is attained. Drummond/North Elmsley has a proud history of managing and limiting the amount of energy the Township consumed but from an economic concern that was only considered on with a short term perspective. As a rural township with limited development and services, it was incumbent for the local taxpayer that proper fiscal constraint is demonstrated.

In the future not only will be consideration given to the immediate costs but also to the long term costs which are not only economical but environmental, as it is the long term viability of the community to be a healthy enjoyable sustainable municipality within Eastern Ontario. Therefore, with economics as the base and a continued enjoyable community in which to live, this plan will serve as an evolving map which will result in lower fossil fuel usage per square foot of facility within the Township. The most important objective is the control that the Township will gain over the energy consumed during the next 5 years.

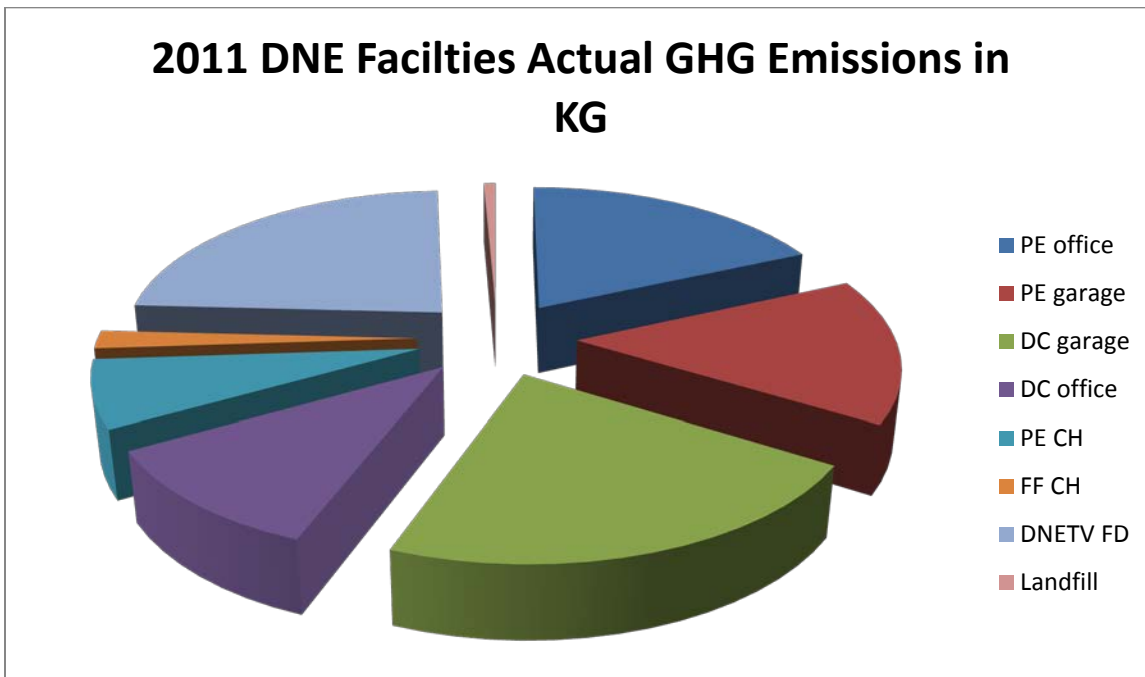
- The Green House Gas plan presented in this report is comprised of the following elements:
- Overview usage and calculations from the 2011 year;
- Mandated provincial requirements/timelines and desired local requirements/ timelines;
- Overview of the strategy and goals of the Township’s GHG plan;
- The benefits (Financial) that are anticipated;

## THE STARTING LINE!!

The starting line for this plan was the requirement that the energy usage for each municipality in Ontario from 2011 had to be made public by July 1, 2013. This calculation is created by considering the amount energy that Drummond North Elmsley used in the form of electricity, natural gas, propane, and heating oil at all the facilities for the calendar year and determining the amount of carbon that was released from those locations. Other factors in those calculations include the number of hours each building was used per week and the square footage of the building. It is important to note that it is not an actual economic cost for use but the number of KW/hr., liters cubed meters used by the facility. Every single building was considered and in the case of Drummond Center and the Port Elmsley complex, they were both divided into two buildings to accurately reflect the two different uses of offices and garage facilities. The community halls were measured as well as the landfill site buildings and the DNETV fire department complex in Perth. The chart below adequately reflects that the majority of the buildings use roughly the same energy with garages being only slightly higher due to the lost energy from the overhead doors that are needed to allow equipment passage. “(See second attachment to report for actual numbers but in general it was between 5 and 32 units for each building.)”



In order to determine priorities of where the attention should go, it is important to look at the actual total energy used as although the land fill would appear to be an area where a great deal of attention could be spent the actual energy used is relatively minor.



By **COMPARING** both charts it is possible to have a clearer picture that conservation in the garages and the municipal offices will have the biggest impact in reducing the greenhouse gases the Township emits. “(Information determined from second attachment but in general emissions ranged from 12 to 25, 000 kgs per year.)”

## TIME LINES

The province mandated that local municipalities make public the actual usage reports yearly. It started with the 2011 usage being completed by July 1, 2013. Next, a Municipal GHG plan must be created and made public along with the 2012 usage report by July 1, 2014. Reports and usage will continue to be made public on or before every July first of the next year.

In Drummond North Elmsley, it is being recommended to increase the speed in which the usages are posted and that the plan is reported. This is because in a smaller community changes will be most likely to be effective when implemented closer to the event. Hence the goal will be to post the plan and usage from 2012 by July 2014, post report on the plan and usage from 2013 by December 2014 and then to post the 2014 usage and plan report by March 2015 and then every year. Once this is achieved, the Township will post details 3 months after year end.

## OVERVIEW OF GHG STRATEGIES AND GOALS.

### GOALS:

Due to the fact that Drummond/North Elmsley has been concerned about energy costs for numerous years and the fact that approximately 90% of the facilities are in good to excellent condition; reductions will be not as dramatic as those municipalities which have arenas and water/sewage treatment plants. That does not change the fact that every step taken to reduce the local use is important.

- 1) Reduce GHG emissions overall by Township facilities per square foot by 10% from 2011 levels by 2018.
- 2) Reduce GHG emissions by a further 5% by 2025.
- 3) While growing the Township population by 15% by 2025.

### STRATEGIES:

With limited resources the Township will need to implement these goals without increasing staffing. When this plan is implemented a GHG group will be established. This group should be meeting 3 times per year except in dire need. and consideration should be given as to whether or not these meetings can be conducted through email or other means. The group should be developed with the following minimum; 1 building, 1 administration, 1 public works with an open invite for input from any members of Council, Committees, Fire Department and interested members of the public. This group will concentrate on first educating and encouraging the basic principles of conservation this includes turn it off, turn it down, and control it. This strategy of people action first is trying to achieve 2/3<sup>rd</sup> of the reduction goals. Should this group find effective and desirable results some consideration can be given to expanding this plan to including street lights and Township vehicles? The last 1/3<sup>rd</sup> reduction will be achieved during regular and scheduled upgrades in which technology is considered weighing the costs and dependability to achieve these goals.

Consideration will be explored regarding the feasibility of renewable energy including the cost and benefits which may be obtained by either participating in a project or securing energy from such a project. Even if such a plan or project is deemed to be unacceptable these options will be reviewed within the 5 year anniversary or whenever an opportunity is presented.

## SHOW ME THE MONEY 😊

This plan will certainly be able to demonstrate the reduced use of fossil fuels and the reduction of GHG as positive steps for the local environment and the community, as a whole. In addition, with the anticipation of increased costs for energy the reduction of the amount used as compared to today will be smaller than if the Township continued to use the same amount. However, the question of “will this line on the budget become smaller” is much more difficult to answer? This is due to the lack of control/influence that local municipalities have at this time with either upper government or multinational corporations in setting prices for commodities. This Township will manage to implement this plan with current human resources and proven technologies. Control and consideration of the energy consumed will result in the lowest possible cost regardless of unforeseen difficulties that happen.

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