Generation Green 2019/2020 - Reducing Carbon Emissions

Clayton

My initiative.

Replace regular car trips with bus rides to and from home and my school, and to and from work, which will help reduce emissions as the Oakville Transit busses run with, or without passengers. As I track my emission reduction I can use this data to help inspire others to make the change. Every person on the bus will be saving a certain amount of Greenhouse Gas (GHG) emissions from being released into our environment.

This will be taking place over the course of a week, afterwards I will calculate how many emissions are saved by taking the bus to school or to work as opposed to driving. Once I have those numbers, I can easily calculate how the impact could expand if more than one person were to do the same thing.

My common routes.

Home to School:

Car = 5 mins, 1.8km,

Bus = 9 mins, 2=1.8km

Home to Work:

Car = 14mins, 7.7km,

Bus = 34 mins, 10.3km

***Found distances and time estimates using Google Maps*

Outcome

As Oakville Transit buses run with, or without passengers, it would be a wise decision to ride the buses instead of driving cars. We cannot control the buses but we can control our use of our vehicles. Therefore it would be wise to ride the Oakville Transit busses as often as possible.

I rode the bus for a week to my work and back and I **saved 1027635.84 GHG emissions**. (Three shifts in a week, two bus rides instead of cars each shift). This total was calculated by how many emissions are released when I drive to work and multiplied it by six as it is three round trips. However by switching to a bus, which is going to be on the road regardless, I saved many GHG emissions. If three people were to do the same thing, roughly **3082907.52 emissions would be saved.**

Ideas for expansion - Part 1.

Students Ride Free in Summer:

High School students ride free of charge for the months of July and August with proof of student ID. Designed to help put bodies in seats as students get used to the bus transit lifestyle.

Students Toonie to ride:

For the months of September- June, High School students ride for only $2.00 with proof of student ID. This is designed to ensure bodies are on the busses as students would be able to afford to take public transport.

Youth Based Advertisements:

Oakville Transit must start promotions that connect to the general youth of Oakville as they are potentially the highest ridership group in Oakville. The intent of this would be to increase the bus ridership base in Oakville.

- Example of promotional material.

JJM

Ideas for expansion - Part 2.

Priority Bus Lanes:

Lanes dedicated solely to bus traffic -

1) Helps shorten travel times.

2) Shortens wait times for bus transport.

(Peak commute hours only)

Special Events:

During Earth Week (April), Oakville Transit could run promotions on how beneficial the bussing is for the environment.

Next steps.

Implement the ideas of how to engage Oakville youth in saving the planet through public transit by moving away from unnecessary car rides.

Promote in the schools through announcements, HDSB – parental awareness, social media. All of these promotional methods would work well to address Oakville youth to riding the bus. The price drop (Toonie to Ride), would ensure all students have the affordability to take the bus. Advertising will help to promote and make Oakville youth aware of the ease and extensiveness of the Oakville Transit bus system. Priority bus lanes will help address the concerns as to how long it takes to ride public transportation.

I believe that these public transit ideas for youth would work beneficially to reduce carbon emissions in our community of Oakville.

Calculations - Part 1 (School).

Calculations of GHG emissions released through car rides to and from work and school:

GHG emissions = Activity x Energy Intensity x Emissions Factor

Home to school:

By car:

GHG emissions for a car ride to school = (1.8)(9.6)(2317Co2e/L)

= 40037.76 CO2e

By Bus:

GHG emissions for bus ride to school = (1.8)(78.4)(2748g CO2e/L)

= 387797.76 CO2e

Calculations - Part 2 (Work).

Calculations of GHG emissions released through car rides to and from work and school:

GHG emissions = Activity x Energy Intensity x Emissions Factor

To work:

By car:

GHG Emissions = (7.7)(9.6)(2317Co2e/L)

= 171272.64 CO2e

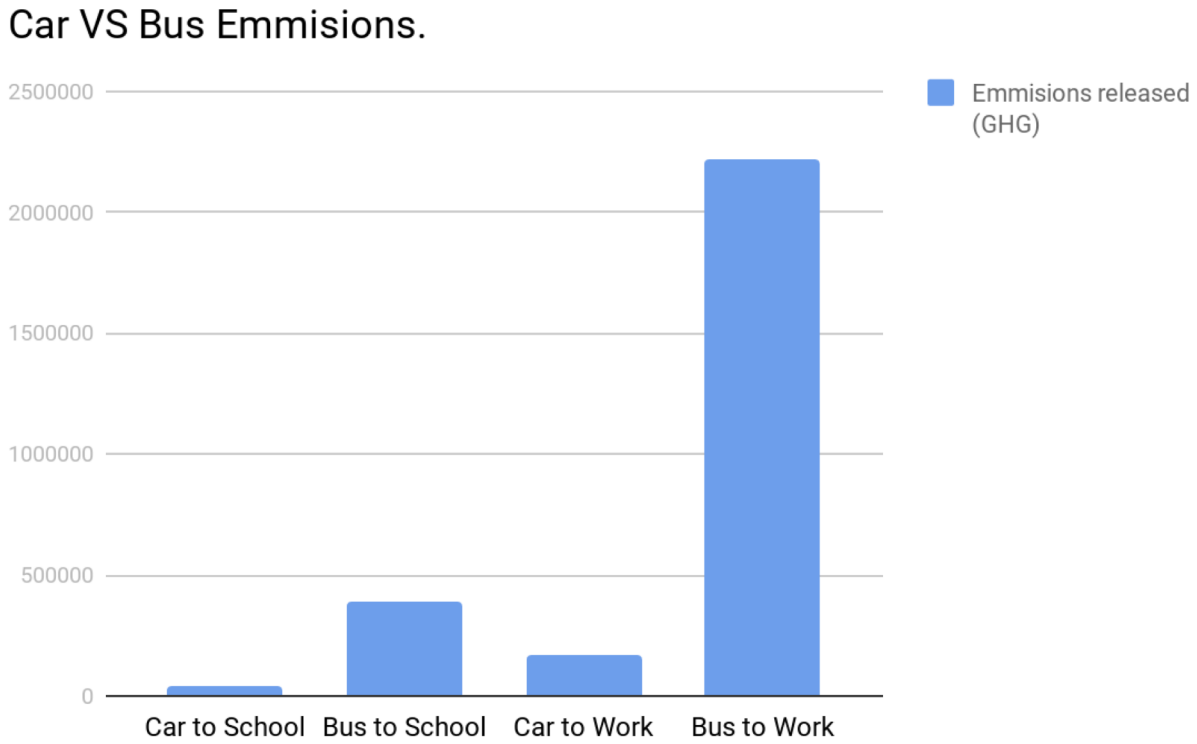
By Bus:

GHG Emissions = (10.3)(78.4)(2748g CO2e/L)

= 2219064.96

Graph

Conclusion,
Buses release more GHG emissions per kilometer, but run regardless of the number of passengers that ride them, if we change what is in our control and eliminate unnecessary car rides by increasing ridership on Oakville Transit busses, then we reduce GHG emissions into our environment



Persons of Influence.

Mayor of Oakville : Rob Burton

Councillors : Beth Robertson, Sean O'Meara, Ray Chisholm, Cathy Duddeck, Janet Haslett-Theall, Dave Gittings, Peter Longo, Allan Elgar, Marc Grant, Jeff Knoll, Natalia Lishchyna, Tom Adams, Jasvinder Sandhu, Pavan Parmar

Director, Oakville Transit : Barry Cole

Director of Education, HDSB : Stuart Miller

Director of Education, HCDSB : Pat Daly

Directors of Private High Schools (Oakville)