

Performance Reporting Scorecard

Focus Area: Environment

Fire Hall No. 1 Energy Consumption & GHG Emissions

Measure: 1) Consumption per square meter 2) Tonnes of CO2 equivalent

Target

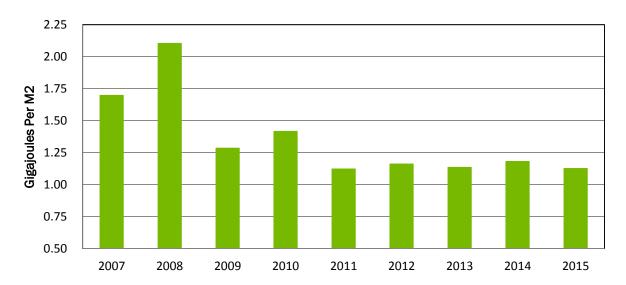
Using 2011 as a baseline, staff monitor the Fire Hall No. 1 greenhouse gas (GHG) emissions and set yearly energy reduction targets based on energy efficient projects.

Overview

Fire Hall No. 1 is a 24-hour operational building that serves the Town Centre. In addition to its regular operation as a fire hall, it houses Fire Department administrative offices for the City and a large training room. The facility also has the capacity to function as a post-disaster Emergency Operations Centre.

Following two years of expansion and renovations, the ribbon was cut on Fire Hall No. 1 in June 2010. The original building size was expanded from 905 square meters to 2,115 square meters, an increase of 1,210 square meters or 134%. The Fire Hall No. 1 project is registered with the Canada Green Building Council and has achieved a Leadership in Energy and Environmental Design (LEED) level of Gold.

Electricity & Natural Gas Consumption



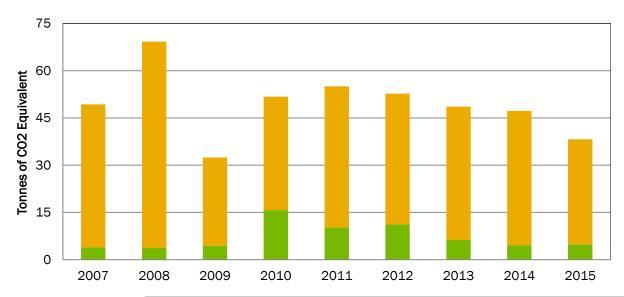
	2010	2011	2012	2013	2014	2015
Gigajoules Per M2	1.42	1.12	1.16	1.13	1.18	1.13
Consumption in GigaJoules						
Electricity	2,277	1,477	1,625	1,552	1,639	1,707
Natural Gas	717	894	828	848	857	673

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GHG Emissions



	2010	2011	2012	2013	2014	2015
GHG Emissions						
Electricity	15.71	10.19	11.21	6.23	4.59	4.78
Natural Gas	36.04	44.84	41.52	42.37	42.65	33.47

Additional Information

Status 2007-2015: Fire Hall No. 1 uses both electricity and natural gas to power lighting and other building systems. As a result of 2009 to 2010 energy efficiency improvements, a baseline for energy consumption for Fire Hall No. 1 was set in 2011, the first full year following construction. With an increase in size and an increase to operational hours, it was expected that electricity and natural gas consumption would increase. Although Fire Hall No. 1 is consuming more electricity and natural gas post-construction, overall it is using less energy per square meter compared to pre-construction levels.

One would expect that if energy consumption is decreased, then the corresponding GHG emissions would also decrease; however, natural gas emits a larger amount of GHG emissions than electricity. So, if natural gas consumption increases while electricity consumption decreases, Fire Hall No. 1 may experience an increase in overall GHG emissions.

Since the completion of the Fire Hall No. 1 construction project, further energy reduction opportunities have been identified, specifically around energy savings as a result of behaviour changes. In May 2013, fire hall staff participated in a "lights out" month long campaign that resulted in 24% energy reduction over May 2012. Opportunities such as this to reduce energy consumption at Fire Hall No. 1 will be the basis of new reduction targets which are currently being developed and will be in place in 2015.

In keeping with the Maple Ridge commitment to be environmentally responsible, the Fire Hall No. 1 project is registered with the Canada Green Building Council and has achieved a Leadership in Energy and Environmental Design (LEED) level of Gold.

For more information on energy efficiency at Fire Hall No. 1: For more information on Maple Ridge GHG emissions:

<u>View Fire Hall No. 1 webpage</u> <u>View GHG Emissions webpage</u>