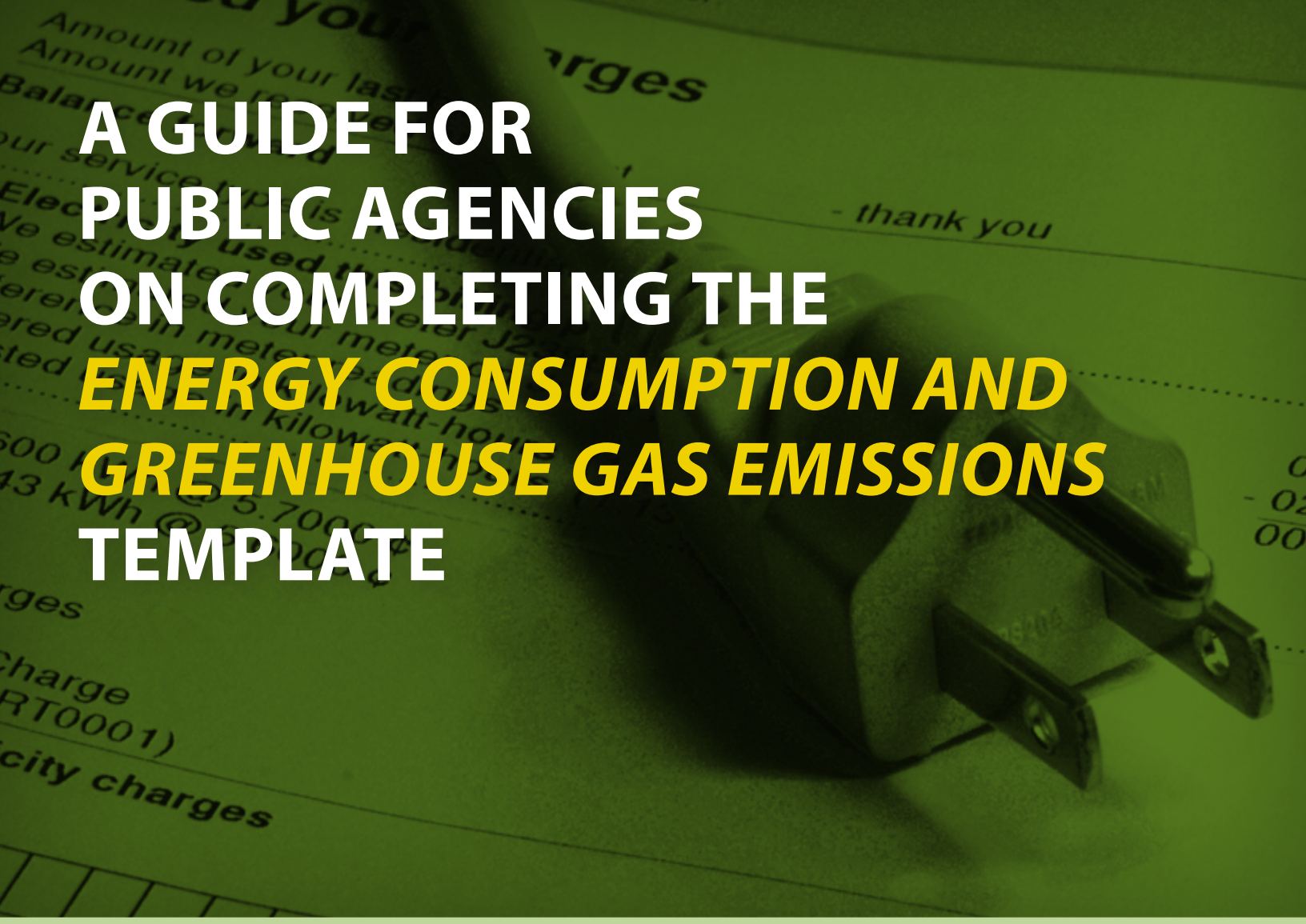

# A GUIDE FOR PUBLIC AGENCIES ON COMPLETING THE *ENERGY CONSUMPTION AND GREENHOUSE GAS EMISSIONS* TEMPLATE

Ontario

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# 1.0 INTRODUCTION

THE PROVINCIAL GOVERNMENT HAS COMMITTED to help public agencies better understand and manage their energy consumption. As part of this commitment, Regulation 397/11 under the *Green Energy Act, 2009* requires certain public agencies—Municipalities, Municipal Service Boards, Schools Boards, Universities, Colleges and Hospitals—to report on their energy consumption and greenhouse gas (GHG) emissions annually beginning in 2013, and to develop and implement five-year energy conservation and demand management (CDM) plans starting in 2014 (*see table below*).

This document provides guidance to colleges, hospitals, universities, school boards and municipalities on how to complete the Energy Consumption and Greenhouse Gas Emission Template (the Template) prepared by the Ministry of Energy. This document provides a step-by-step guide to completing the Template and provides responses to questions and comments that may arise.

The guide starting from section 2 is organized as follows:

- **Section 2**: provides general information that is not specific to fields in the Template;
- **Section 3:** provides details on how to report for each field of the Template;
- **Section 4:** outlines how the automated error checking in the Template works
- **Section 5:** outlines some manual data checking suggestions;
- **Section 6:** explains how to upload the finished Template;
- **Section 7:** provides some troubleshooting tips; and
- **Section 8:** provides a list of abbreviations and terms used throughout the guide

The table below outlines the requirements with the corresponding energy data year.

| DEADLINE | TEMPLATE REPORTING REQUIREMENTS | CDM PLAN REPORTING REQUIREMENTS |
|---|---|---|
| July 1, 2013 | Report on 2011 calendar year | None |
| July 1, 2014 | Report on 2012 calendar year | Post CDM plan |
| July 1, 2015 | Report on 2013 calendar year | None |
| July 1, 2016 | Report on 2014 calendar year | None |
| July 1, 2017 | Report on 2015 calendar year | None |
| July 1, 2018 | Report on 2016 calendar year | None |
| July 1, 2019 | Report on 2017 calendar year | Post updated CDM plan |
| July 1, 2020 | Report on 2018 calendar year | None |
| July 1, 2021 | Report on 2019 calendar year | None |

For additional resources, please visit the Toolkit section under Libraries on the reporting web portal– **https://extra.sse.gov.on.ca/SITES/ENERGY-ECE/SitePages/Home.aspx**.
Feedback concerning the reporting Template and/or website can be directed to **BPSSupport@ontario.ca**.

# 2.0 INFORMATION NOT SPECIFIC TO TEMPLATE FIELDS

## 2.1 GENERAL

### 2.1.1 Why do public agencies have to prepare annual energy consumption and greenhouse gas emissions reports?

THERE ARE A NUMBER OF reasons to prepare the annual reports including:

- Public agencies use a lot of energy. For example:
  - *Municipalities pay more than $680 million for electricity and $275 million for natural gas per year;*
  - *Total electricity consumption by municipalities is over 6.6 billion kWh per year, which is more than any industrial sector other than Pulp & Paper;*
  - *Municipalities have approximately 26,000 electricity accounts*[1]*;*
  - *Utility costs for Ontario hospitals exceed $200 million per year;*
  - *Utility costs represent approximately 47.34% of the total plant operations and maintenance expenditures for hospitals;*
  - *Hospitals have the highest energy intensity of all publicly funded facilities*[2]*;*
  - *Ontario school boards spend about $460 million on utility bills*[3]*; and*
  - *Ontario University sector has more than 1,000 buildings/facilities that consumed 1.2 billion kWh of electricity and 649 million ekWh of natural gas (2009).*
- Requiring energy reporting helps organizations better understand how and where energy is used in their operations. This will also:
  - *Drive participation in conservation and demand management programs;*
  - *Encourage activities to reduce energy consumption, which can free up funding for core activities;*
  - *Allow organizations to benchmark and compare the energy consumed at similar facilities across the province; and*
  - *Support the preparation of 5-year conservation and demand management plans also required under regulation 397/11.*

1 **http://www.ieso.ca/imoweb/pubs/sector-specific_research/Ontario_Municipalities-An_Electricity_Profile.pdf**
2 **http://www.oha.com/CurrentIssues/Issues/eHealth/Documents/EnergyEfficiencyOpportunitiesfeb28.pdf**
3 **http://news.ontario.ca/mei/en/2009/05/ontario-helps-schools-invest-in-green-technology.html**

- Conservation is a key component of Ontario's Long Term Energy Plan with a demand savings target of 7,100 MW and an energy savings target of 28TWh by 2030. The institutional and commercial sectors could contribute 50% of this target.
- This new regulation will help Ontario achieve its Greenhouse Gas (GHG) emission reduction targets:
  - 6% below 1990 levels by 2014;
  - 15% by 2020; and
  - 80% by 2050.
- These targets were set out in **Go Green: Ontario's Action Plan**, which was issued in 2007 and can be found at–

  **http://www.ene.gov.on.ca.**
- More robust understanding of broader public sector (BPS) energy use will improve policy and program development, as well as increase awareness of GHG emissions.

### 2.1.2 What does a completed Template look like?

An example of a completed Template can be found in Appendix B. This completed Template is just meant as an example. This example may not be for your particular sector. You may have more or less rows of the Template completed depending on the number of buildings/facilities and operation types that you may have.

## 2.2 RESPONSIBILITY FOR REPORTING

### 2.2.1 Do I need to report?

#### *2.2.1.1 Municipalities*

All municipalities in Ontario are required to report, including single-tier, lower-tier and upper-tier municipalities, regional municipalities, counties, and townships.

#### *2.2.1.2 Municipal Service Boards*

"Municipal service board" means,

a) a municipal service board or joint municipal service board established or continued under the *Municipal Act, 2001*

b) a city board or joint city board established or continued under the *City of Toronto Act, 2006*, or

c) a joint board established in accordance with a transfer order made under the *Municipal Water and Sewage Transfer Act, 1997*; ("commission de services municipaux").

These municipal service boards are only required to report on water/sewage treatment or pumping operations/facilities.

#### 2.2.1.3 Universities and Colleges

All post-secondary educational institutions in Ontario are required to report. "Post-secondary educational institution" means a university in Ontario, a college of applied arts and technology in Ontario or another post-secondary educational institution in Ontario, if the university, college or institution receives an annual operating grant; ("établissement d'enseignement postsecondaire").

Federated/Affiliated colleges are not required to report under the regulation.

#### 2.2.1.4 Hospitals

All public hospitals in Ontario are required to report. "Public hospital" means,

a) a hospital within the meaning of the *Public Hospitals Act*, or

b) the University of Ottawa Heart Institute/Institut de cardiologie de l'Université d'Ottawa; ("hôpital public").

Long term care facilities are not required to report.

#### 2.2.1.5 School Boards

All school boards in Ontario are required to report. "School board" means a board within the meaning of the *Education Act*.

### 2.2.2 What are "designated operations" that I need to report on?

The regulation outlines the operations for which public agencies would be required to report on energy use and greenhouse gas emissions and prepare CDM plans. The list of designated operations recognizes that some public agencies, such as municipalities, may have a large number and variety of buildings/facilities, and captures buildings/facilitiesthat are high energy users (such as arenas). Public agencies are encouraged to go beyond the list to include other operation types in their CDM plans.

In an effort to determine whether or not a building /facility is a "designated operation" please see the check list below. If the answer is "yes" to all of the questions below, then the operation should be reported.

- Is the public agency one of the following?

  a) Municipality

  b) Municipal Service Board

  c) Post-secondary educational institution (that receives an annual operating grant)

  d) Public hospital

  e) School Board

- Is the operation type being conducted in each building /facility listed in Table 1 of O. Regulation 397/11? (see next page)

| TYPE OF PUBLIC AGENCY | OPERATION |
|---|---|
| Municipality | 1. Administrative offices and related facilities, including municipal council chambers<br>2. Public libraries<br>3. Cultural facilities, indoor recreation facilities and community centres including art galleries, performing arts facilities, auditoriums, indoor sports arenas, indoor ice rinks, indoor swimming pools, gyms and indoor courts for playing tennis, basketball or other sports<br>4. Ambulance stations and associated offices and facilities<br>5. Fire stations and associated offices and facilities<br>6. Police stations and associated offices and facilities<br>7. Storage facilities where equipment or vehicles are maintained, repaired or stored<br>8. Buildings/facilities or facilities related to the treatment or pumping of water or sewage<br>9. Parking garages |
| Municipal service board | 1. Buildings/facilities or facilities related to the treatment or pumping of water or sewage |
| Post-secondary educational institution | 1. Administrative offices and related facilities<br>2. Classrooms and related facilities<br>3. Laboratories<br>4. Student residences that have more than three stories or a building area of more than 600 square meters<br>5. Student recreational facilities and athletic facilities<br>6. Libraries<br>7. Parking garages |
| School board | 1. Schools<br>2. Administrative offices and related facilities<br>3. Parking garages |
| Public hospital | 1. Facilities used for hospital purposes<br>2. Administrative offices and related facilities |

- Is the operation conducted in a building/facility that the public agency owns or leases?
- Is the public agency issued the utility invoice?
- Is the public agency responsible for paying the utility invoice?
- Is the building/facility within which the operation is conducted heated or cooled? *(The building /facility related to the treatment of water or sewage does not need to be heated or cooled)*
- Is only part of the building/facility where the operation is conducted heated or cooled?

If a municipal service board operates a building/facility listed in table one of the regulation under municipal operations (e.g., library) and the municipality owns or leases the building/facility and receives and pays the energy bills then the municipality is required to report for the municipal service board's operations.

### 2.2.3 Who should be preparing the reports?

The Template would best be completed by someone who has knowledge of the operations and the energy use of your organization's buildings/facilities. This responsibility could fall to, for example, an Energy Manager, Facilities Manager, Environmental Coordinator, Sustainability Coordinator, Administrative Officer, Director of Maintenance, Director of Engineering, Physical Plant Director, or Director of Physical Resources

**As the individual assigned to completing the Template may change over time, it is important that your organizations contact information be updated as required. Each organization can update their contact information under their organization profile after logging into the web portal. See section 6.2 for instructions.**

Knowledge of the operations and the energy use of the public agency's buildings/facilities is needed as well as some limited skills in the use of Microsoft Office Excel.

### 2.2.4 Who should approve the completed reports?

This will depend on the approval process within your agency for reports that will be made available to the public. It is recommended that the most senior person ultimately responsible for energy procurement approve the final report before it is made public. Within some public agencies, approval may be required at the highest level.

## 2.3 TIME PERIODS

### 2.3.1 What is the time period for which public agencies are reporting?

On or before July 1 each year, every public agency will be responsible for completing the Template. The data reported in 2013 is for the 2011 calendar year(January 1 to December 31, 2011).

### 2.3.2 When is the report due?

In 2013, the reporting deadline for the Template is July 1, 2013. A report for each following year will be due on July 1 of each successive year, thereafter. For example, every public agency will be required to report for the 2012 calendar year by July 1, 2014 and so on (see the chart in section 1– Introduction).

### 2.3.3 How long will it take to fill out the Template?

The length of time it will take to fill out the Template will depend on a number of factors including whether your agency already tracks energy use within its buildings/facilities, how many buildings/facilities and operation types it needs to report for, and how much information (e.g.: energy invoices) the person preparing the report will need to track down. Filling out the Template should not take very long. We would advise all BPS agencies to start gathering the information needed well in advance of the deadline. We suggest that the person preparing the report have all of the information needed on hand before starting to fill out the Template. This will make the process easier and quicker.

Based on consultations conducted with public agencies, a smaller public agency that tracks its energy use data should be able to fill out the Template in approximately one hour. A larger public agency that tracks its energy use data should be able to fill out the Template in about a half day of actual staff time. It may take some extra time to find information that may be missing and more time will be needed for public agencies that do not track energy use data or that track the data in a fashion that is not consistent with the Template. In subsequent years tracking energy use and completing the Template should be easier as organizations become accustomed to the process.

## 2.4 MAKING REPORTS PUBLIC

### 2.4.1 Do the reports have to be made public?

Yes. The completed Template must be submitted to the Ministry, published on each public agency's website and intranet site, if it has either or both, and made available to the public in printed form at its head office. Details on how to submit to the Ministry will be included with the Template. Public agencies may create a PDF file of its Template to make public on its website and intranet site. Public agencies may choose the most appropriate format to provide its Template in printed form at its head office. Some public agencies may wish to include a summary of the Template to accompany the versions made available to the public. Organizations annual energy consumption and GHG emission reports and CDM Plans that are posted on their websites or made available through printed copies must be compliant with *Accessibility for Ontarians with Disabilities Act, 2005* (AODA) requirements.

### 2.4.2 Why do the reports have to be made public?

Public agencies are required to make their Template public in the spirit of transparency within the BPS and in order to encourage a culture of conservation. By providing details of a public agency's energy consumption and GHG emissions to the public, stakeholders can access the information they need to become active participants in working towards the public agency's conservation goals. Making the reports public is similar to the requirements of the Ontario Municipal Performance Measurement Program.

### 2.4.3 How long must the reports be available to the public?

The Template must be made available to the public for at least a full year, until the report for the following year is made available to the public. Public agencies are encouraged to make the reports available to the public indefinitely, though, as this will allow tracking of progress on its energy conservation targets over the years.

## 2.5 DATA REQUIREMENTS

### 2.5.1 What information is needed to prepare the reports?

For each operation that the public agency is required to report on, the following information is required:

- Operation Name
- Operation type
- Address, City, Postal Code
- Total Floor Area of the Indoor Space in which Operation is Conducted
- Average # Hours Per Week
- Annual Flow (Mega Litres)
  - Public agencies will be able to note seasonal operations in the Comments column of the reporting template
- Energy Type and Amount Purchased and Consumed in Natural Units in the following categories:
  - Electricity
  - Fuel Oil 1 & 2
  - Fuel Oil 4 & 6
  - Natural Gas
  - Propane
  - Coal
  - Wood
  - District Heating, whether it is from a Renewable source, and if so, the Emission Factor
  - District Cooling, whether it is from a Renewable source, and if so, the Emission Factor

The online reporting template will automatically calculate the GHG emissions for each building/facility reported.

Public agencies can find the energy amounts to report in their energy bills, by using energy tracking tools, or working with their electricity and gas utilities (where applicable).

Instructions on how to fill in the proper information for each of these categories is provided in Section 3 of this guide.

## 2.5.2 How can public agencies find the energy amounts to report?

### *2.5.2.1 Energy bills*

Public agencies receive bills for all energy types purchased and consumed. The bills will show the amount of energy purchased. Some bills will also show the time period during which the energy was consumed (e.g.: electricity and natural gas bills). More details on what to look for and how to report energy purchased and consumed from bills is provided in sections 3.13 to 3.20 and in Appendix A.

Generally, the person responsible for completing the Template does not receive the bills for energy use directly. Bills are typically directed to the person(s) within the public agency responsible for the finances. If this is not already being done, we recommend that all public agencies set up procedures for providing a copy of each energy bill to the person responsible for completing the Template on a regular basis. This will be necessary for completing the Template on an annual basis, but will also prove useful in monitoring energy use and progress on energy conservation initiatives.

The process of reviewing energy bills will allow organizations to verify their energy bills, potentially identifying over billing errors.

### *2.5.2.2 Energy use tracking tools*

Many public agencies use tracking tools to keep up-to-date information on energy usage and costs for their facilities. It is recommended that public agencies that are not already using energy tracking tools consider making use of them. A number of third party energy use tracking tools are available that meet the needs of public agencies and some are specifically designed to meet the requirements of the Template. Public agencies may also develop their own spreadsheet or database tool to track energy use and costs. For public agencies that have developed their own tools or plan to, we suggest that the tool be updated to provide the required information for the Template. Organizations may also want to develop applications that easily transfer the data from their system to the Template.

### *2.5.2.3 Working with utility companies*

Most utility companies (e.g.: electric and natural gas companies) that public agencies purchase energy from are able to provide energy use and cost data for a specific time period in digital format (e.g.: an emailed Excel file). Some utilities also provide customers with online access to their own utility data. Every public agency is encouraged to contact its utility companies to request digital copies of their energy usage data and access to their online accounts, where applicable. In many cases, public agencies are considered important customers for utility companies and will have designated account managers that can be of assistance.

### *2.5.2.4 Managing issues with energy data*

Regardless of the source of the energy consumption data used to populate the Template, it is important that public agencies verify that the data is for the correct time period. The reporting period is January 1 to December 31 (applicable to Colleges, Hospitals, Universities, Municipalities and Municipal Service Boards). School boards will report on their school fiscal year.

If a public agency is using data from an energy use tracking tool to populate the Template and data is incorrect or missing, the public agency will need to correct this deficiency. The public agency may have to refer back to original energy bills or request data directly from the energy provider in order to determine the correct data that should be in the tracking tool. Please refer to section 3 for each energy type purchased and consumed to confirm what the specific data requirements are.

#### *2.5.2.5 Greenhouse gas emission data*

Built in macros in the Template will calculate the GHG emissions and intensity values automatically when the user saves the file, except in the case of District Heating and Cooling, see sections 3.21 and 3.24. Organizations need to ensure that macros are enabled in Excel.

## 2.6 BUILDINGS/FACILITIES TO BE REPORTED

### 2.6.1 Is reporting required for all facilities?

No. Energy consumption data must be reported for each facility with an operation type listed in section 3.5, that the public agency owns or leases that:

a) is heated or cooled and in respect of which the public agency is issued the invoices and is responsible for making the payments for the building/facility's energy consumption; or

b) is related to the treatment or pumping of water or sewage, whether or not the building or facility is heated or cooled, and in respect of which the public agency is issued the invoices and is responsible for making the payments for the building or facility's energy consumption.

In the case of post secondary student residences, have more than three storeys or a building area of more than 600 square metres.

Public agencies are not required to report for buildings/facilities that do not meet this criteria.

If there are multiple operation types within a building/facility, each operation type must be reported in a separate row. Please see section 2.9.2 for details on how to allocate energy purchased and consumed for each operation type within a building/facility.

### 2.6.2 Is reporting required for federated/affiliated colleges associated with a university?

No. Federated/affiliated colleges are not covered under the regulation.

### 2.6.3 Is reporting required for facilities that are not heated or cooled (conditioned)?

No. The only facilities that are not heated or cooled (conditioned) that reporting is required for are those related to the treatment or pumping of water or sewage.

### 2.6.4 Do public agencies have to report for each individual building/facility within a site or campus?

Yes. Each public agency is required to report separately for each building/facility within a site or campus. The public agency must also break down the building by operation type and report separately for each operation type. For buildings/facilities that are not individually metered for energy use, please see section 2.9.2 for details on how to allocate the energy purchased and consumed by operation type.

In a campus setting where there are many multi-purpose buildings/facilities but few meters, public organizations can use methods outlined in section 2.9.

### 2.6.5 How should public agencies report for facilities that are closed?

If a public agency owns or leases buildings/facilities that are closed (where no operation is being conducted) and they are not heated or cooled, it does not report for them. If a public agency owns or leases buildings/facilities that are closed and they are heated or cooled, it does not report for them.

## 2.7 RENTED OR LEASED BUILDINGS/FACILITIES

### 2.7.1 Are public agencies required to report for buildings/facilities they lease?

Yes, if the organization receives the energy invoice and is responsible for paying it. If energy costs are included in the rent, the public agency is not required to report for the leased building/facility.

## 2.8 TYPES OF ENERGY

### 2.8.1 What types of energy are public agencies required to report on?

Public agencies are required to report the amount purchased and consumed in the operation of its facilities of the following energy types:

- Electricity
- Natural Gas
- Fuel Oil 1 & 2
- Fuel Oil 4 & 6
- Propane
- Coal
- Wood
- District Heating (if purchased and consumed)
- District Cooling (if purchased and consumed)

Details on how to fill in the proper information for each of these categories is provided in section 3 of this guide.

### 2.8.2 Are public agencies required to report on energy generated from renewable resources?

Public agencies do not have to report on energy generated from renewable resources in the Template. Each public agency does however have to include in its CDM plan a description of any renewable energy generation facility operated by the public agency and the amount of energy produced on an annual basis by the bulding/facility. This should also include a description of:

- The ground source energy harnessed, if any, by ground source heat pump technology
- The solar energy harnessed, if any, by thermal air technology or thermal water technology
- The proposed plan, if any, to operate heat pump technology, thermal air technology or thermal water technology in the future

## 2.9 DIVIDING UP ENERGY FOR REPORTING BY OPERATION TYPE

The Regulation requires organizations to make a reasonable effort to allocate their energy use. The tools in this sectionmay assist in in these allocations.

### 2.9.1 How could the energy be divided up if it is purchased and consumed for multiple buildings/facilities?

In cases where energy is purchased for, and consumed in, multiple buildings/facilities (e.g.: multiple buildings/facilities have one electricity or natural gas meter), public agencies are required to report for every building/facility and in cases where there are multiple operations in a building/facility, to further report by each operation type. The energy use shall be allocated using the following formula:

$$E_r = E \cdot \left( \frac{a_r}{a} \right)$$

**Where:**

- $\mathbf{E_r}$ is the energy use to be reported for a building,
- **E** is the total energy for all of the buildings for which the energy is purchased and consumed,
- $\mathbf{a_r}$ is the floor area of the building being reported for, and
- **a** is the total conditioned floor area of all of the buildings for which the energy is purchased and consumed.

**NOTE:** *Do not include outdoor or enclosed areas that are not heated or cooled in the total conditioned floor area of the metered facility.*

If any building/facility is divided into two or more distinct operation types, refer to section 2.9.2 for details on allocating the energy purchased and consumed.

A Microsoft Office Excel based tool has been developed to help public agencies with this calculation. Use of this the tool is optional and is only intended as a resource to provide further assistance. The file is called **"Calculator for allocating energy use by Operation Type (Hospital, municipal, post-secondary and school board)"** and can be downloaded from the Toolkit section of the reporting portal.

## 2.9.2 If a building is divided into two or more distinct operation types, how could the energy usage be divided up?

In cases where a building/facility is divided into two or more distinct operation types, but the energy is purchased and consumed for the entire building/facility (e.g.: the building/facility only has one electricity or gas meter), basic and advanced methodologies for allocating the energy used are presented below.

### *2.9.2.1 Basic methodology*

Every public agency is required to report for each operation type within a building/facility based on the proportion of the total floor area that it occupies within the total conditioned floor area of the building/facility. For each operation type, the following formula could be used to calculate the energy usage to report:

$$E_r = E \cdot \left( \frac{a_r}{a} \right)$$

**Where:**

- $\mathbf{E_r}$ is the energy use to be reported,
- **E** is the total energy purchased and consumed for the building/facility,
- $\mathbf{a_r}$ is the floor area of the Operation Type being reported for, and
- **a** is the total conditioned floor area of the building/facility.

**NOTE:** *Do not include outdoor or enclosed areas that are not heated or cooled in the total conditioned floor area of the metered facility.*

### 2.9.2.2 Advanced methodology

A public agency may choose to apply a weighting factor to account for the difference in relative energy load for each operation type using the following formula:

$$E_r = E \cdot \left( \frac{a_r \cdot w_r}{\sum_{i=1}^{n} [a_i \cdot w_i]} \right)$$

**Where:**

- $\mathbf{E_r}$ is the energy use to be reported,
- **E** is the total energy purchased and consumed for the building/facility,
- $\mathbf{a_r}$ is the floor area of the Operation Type being reported for,
- $\mathbf{w_r}$ is the weighting factor for of the Operation Type being report for,
- **n** is the total number of Operation Types in the building/facility,
- **a** is the conditioned floor area of each Operation Type, and
- **w** is the weighting factor of each Operation Type.

**NOTE:** *Do not include outdoor or enclosed areas that are not heated or cooled in the total conditioned floor area of the metered facility.*

A public agency using the advanced methodology must know the energy usage ratio or weighting factor of each operation type being reported and must be careful that the calculations do not result in more or less energy being reported than was purchased and consumed.

**— EXAMPLE —**

**A building/facility with a total floor area of 10,000 $m^2$ contains a community centre that takes up 6,000 $m^2$, a library that takes up 3,000 $m^2$ and a 1,000 $m^2$ art gallery. An attached unconditioned parking garage takes up an additional 5,000 $m^2$. The total natural gas usage for the building/facility for the year is 50,000 $m^3$. As the parking garage is not heated or cooled, it is not included in the calculations.**

**In this example, using the basic methodology, reporting would be required for the community centre, the library, and the art gallery, as each of these is an Operation Type for which reporting is required. The example calculations for the art gallery are that E = 50,000 $m^3$, $a_r$= 1,000 $m^2$, a = 10,000 $m^2$, and**

$$E_r = 50{,}000m^3 \cdot \left( \frac{1{,}000m^2}{10{,}000m^2} \right) = 5{,}000m^3$$

**Thus, for the basic methodology, 5,000 $m^3$ of natural gas would be reported for the art gallery. The same calculation would also need to be done for the community centre and library so that it can be determined how much of the 50,000 $m^3$ to assign to each Operation Type.**

**In this example, if the ratios of energy usage for the community centre, library, and art gallery were known to be 1.5:1.25:1, the advanced methodology could be used. The example calculations for the community centre are that E = 50,000 $m^3$, $a_r$= 6,000 $m^2$, $w_r$ = 1.5, and**

$$E_r = 50{,}000m^3 \cdot \left( \frac{6{,}000m^2 \cdot 1.5}{6{,}000m^2 \cdot 1.5 + 3{,}000m^2 \cdot 1.25 + 1{,}000m^2 \cdot 1} \right)$$

$$= 32{,}727m^3$$

**Thus, for the advanced methodology, 32,727 $m^3$ of natural gas would be reported for the community centre. The same calculation would also need to be done for the library and art gallery so that it can be determined how much of the 50,000 $m^3$ to assign to each Operation Type.**

A Microsoft Office Excel based tool has been developed to help public agencies with this calculation. Use of this the tool is optional and is only intended as a resource to provide further assistance. The file is called **"Calculator for allocating energy use by Operation Type (Hospital, municipal, post-secondary and school board)"** and can be downloaded from the Toolkit section of the reporting portal.

### 2.9.3 What is a method for reporting forbuildings/facilities that have multiple water system owners sharing the same operation facilities that are not sub-metered?

The public agency that owns or leases the facility and receives the energy invoice and is responsible for paying it would report the energy consumption and flow for that facility.

### 2.9.4 How could public agencies handle data from bills that span the calendar year beginning or end (e.g.: December–January)?

Most energy bills do not start and end at the beginning or end of each calendar month. Therefore it is likely that public agencies will receive bills that span a period that starts in the year before the reporting year (e.g.: December 15, 2010) and ends in the reporting year (e.g.: January 14, 2011). For these bills you are required to pro-rate the energy usage for the time period that is within the reporting year, using the following formula:

$$E_r = E \cdot \left(\frac{d_r}{d}\right)$$

**Where:**

- $\mathbf{E_r}$ is the energy use to be reported,
- **E** is the total energy used in the billing period,
- $\mathbf{d_r}$ is the number of days in the billing period within the reporting year, and
- **d** is the total number of days in the billing period.

**— EXAMPLE —**

**A public agency receives an electricity bill for usage over the period of December 6, 2010 to January 5, 2011 for 50,000 kWh. For the reporting period of the calendar year 2011, 5 out of the 30 days in the billing period are within the reporting year. Thus, E = 50,000 kWh, $d_r$ = 5, d = 30, and**

$$E_r = 50{,}000kWh \cdot \left(\frac{5}{30}\right) = 8{,}333kWh$$

**In this example, the public agency would report 8,333 kWh for the 2011 calendar year reporting period from the December 6, 2010 to January 5, 2011 electricity bill.**

A Microsoft Office Excel based tool is available to help public agencies with this calculation. Use of this the tool is optional and is only intended as a resource to provide further assistance. The file is called **"Calculator for allocating energy use by Operation Type (Hospital, municipal, post-secondary and school board)"** and can be downloaded from the Toolkit section of the reporting portal.

### 2.9.5 What method could public agencies use to report for energy types that are provided in batches (e.g.: fuel oil, propane, coal, or wood)?

Some energy types, such as fuel oil, propane, coal, and wood are purchased by public agencies in batches and then consumed over time. Public agencies need to report the energy purchased and consumed during the reporting period. Batches of these energy types will often be purchased in one reporting period and part of it used in the next reporting period. For example, a public agency may fill a propane or fuel oil tank in December of 2010 and use the contents over the months of December 2010, and January, February and March of 2011. Therefore only the energy used in January, February and March of 2011 would be reported. Specific examples on how to report on the different energy types are provided below.

#### *2.9.5.1 Fuel Oil and Propane*

The normal practice with fuel oil and propane is for the supplier to fill the tank each time the fuel oil or propane is delivered to a public agency. Thus, the amount delivered could be allocated to the time period from the previous time the tank was filled up until the time of the delivery. The amount of fuel oil or propane for the first delivery of a new reporting period should be pro-rated to the number of days for that reporting period and the remainder allocated to the previous delivery period. The same formula for allocating electricity or natural gas use between reporting periods could be used:

$$E_r = E \cdot \left(\frac{d_r}{d}\right)$$

**Where:**

- **$E_r$** is the energy use to be reported,
- **E** is the total energy used in the period between deliveries,
- **$d_r$** is the number of days in the period between deliveries within the reporting year, and
- **d** is the total number of days in the period between deliveries.

**— EXAMPLE —**

**A public agency is reporting for the calendar year 2011 and has a delivery of 723 L of propane on December 9, 2011 and another delivery of 567 L of propane on January 24, 2012. The entire 723 L delivered on December 9, 2011 would be allocated to the 2011 reporting year. The 567 L of propane delivered on January 24, 2012 would be pro-rated between the 2011 and 2012 reporting years, based on the number of days within each reporting period. There are 22 days between the two deliveries is in 2011 out of a total of 46 days. Thus, for 2011, E = 567 L, $d_r$ = 22, d = 46, and**

$$E_r = 567L \cdot \left(\frac{22}{46}\right) = 271L$$

**In this example, the public agency would report 271 L of propane for the 2011 calendar year reporting period between the December 9, 2011 to January 24, 2012 deliveries.**

A Microsoft Office Excel based tool is available to help public agencies with this calculation. Use of this the tool is optional and is only intended as a resource to provide further assistance. The file is called **"Calculator for allocating energy by reporting year (Hospital, municipal and post-secondary)"** and can be downloaded from the Toolkit section of the reporting portal.

### 2.9.5.2 Coal and Wood

Coal and wood may also be purchased in batches by public agencies for heating, but is more likely to be purchased in amounts requested by the public agency to meet its needs. The amount purchased may not correlate directly to the amount consumed during a time period as the amount held in storage can vary. The amount of coal or wood on hand may not be precisely tracked by the public agency and this can make it challenging to allocate coal or wood purchased and consumed to a specific reporting year. The public agency could sum up all of the coal or wood purchased for a heating season and then allocate the amount to each reporting year based on the number of days the coal or wood was used for heating within that year. The same formula for allocating electricity or natural gas use between reporting periods could be used:

$$E_r = E \cdot \left(\frac{d_r}{d}\right)$$

**Where:**

- **$E_r$** is the energy use to be reported,
- **E** is the total energy used for a heating season,
- **$d_r$** is the number of days the coal or wood was used for heating within the reporting year, and
- **d** is the total number of days the coal or wood was used for heating within the heating season.

**— EXAMPLE —**

**A public agency is reporting for the calendar year 2011 and had 4 deliveries of 5 metric tonnes of wood in each of August 2010, November 2010, February 2011 and April 2011 for a total of 20 metric tonnes. The public agency uses the wood to operate a wood-burning heating system at its facility that runs from October 1 to May 31 each year. There are 150 days in 2011 out of 242 total days in the heating season. Thus, for 2011, E = 20 t, $d_r$ = 150, d = 242, and**

$$E_r = 20t \cdot \left(\frac{150}{242}\right) = 12t$$

**In this example, the public agency would report 12 metric tonnes of wood for the 2011 calendar year reporting period.**

A Microsoft Office Excel based tool is available to help public agencies with this calculation. Use of this the tool is optional and is only intended as a resource to provide further assistance. The file is called **"Calculator for allocating energy by reporting year (Hospital, municipal and post-secondary)"** and can be downloaded from the Toolkit section of the reporting portal.

# 3.0 TEMPLATE FIELDS

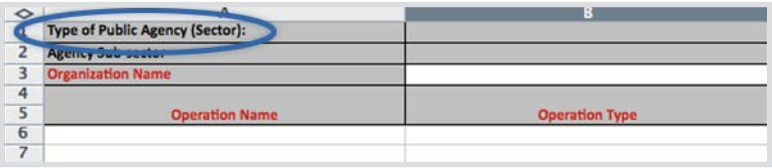
THIS SECTION OF THE GUIDE walks through each of the fields of the Template providing details on how the Template must be completed and addressing frequently asked questions.

**Keep in mind when completing the Template that every mandatory field (indicated with red text) of that particular row being must be fully completed in order to save the Template file. Incomplete rows will result in an error message when attempting to save the file.**

## 3.1 CONFIRM CONSECUTIVE 12-MONTH PERIOD (MONTH-YEAR TO MONTH-YEAR)

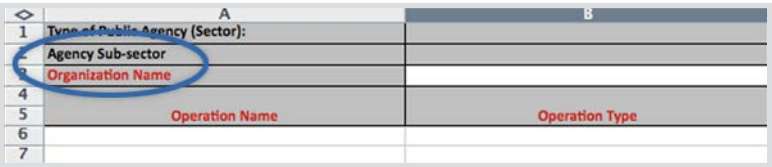

The public agency is to enter the year for which it is reporting. This is entered by indicating the first month and the last month of the consecutive 12-month period of the year being reported. For example: January 2011 to December 2011.

## 3.2 TYPE OF PUBLIC AGENCY (SECTOR) AND AGENCY SUB-SECTOR



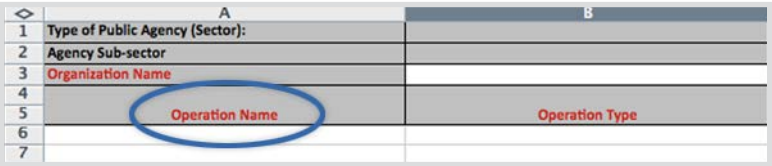

Each sector and sub-sector within the Ontario BPS will have a custom Template to complete which will be provided by the Ministry of Energy. The Type of Public Agency as well as the Agency Sub-sector fields will already be completed in the Template provided.

## 3.3 ORGANIZATION NAME




The public agency is to enter the name under which the corporation operates.

## 3.4 OPERATION NAME



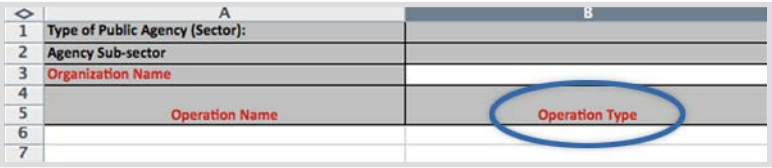

The public agency is to enter the name of each building/facility for which reporting is required. The same building must be reported for multiple times if there are multiple operation types for which reporting is required within the building/facility. See section 2.9.2 for more information.

### 3.4.1 How could public agencies report for multiple buildings/facilities that are connected?

Public agencies are required to report for each building separately, regardless of whether they are connected by walkways above or below ground.

In a campus setting, public organizations have the option of reporting their operations at the building or campus-level.

## 3.5 OPERATION TYPE




Public agencies are required to report for each operation type on the required list, even if there are multiple operation types within the same building/facility. Each operation type is to be reported on a separate line. For details on how to divide energy up that is purchased and consumed for multiple operation types, see section 2.9.2.

Municipalities are required to report for the following operation types:

- Administrative offices and related facilities, including municipal council chambers
  - *For example: Municipal Office, City Hall, Town Hall*
- Public libraries
- Cultural facilities
  - *For example: Museum*
- Indoor recreational facilities
  - *Other listed Operation Types within a recreation facility must be reported on a separate line, such as indoor swimming pools or gyms and indoor courts for playing tennis, basketball or other sports*

- Community centres
  - *Buildings/facilities with multi-purpose rooms in which people gather for social or recreation activities. For example: Community Centre, Community Hall, Seniors Centre*
- Art galleries
- Performing arts facilities
- Auditoriums
  - *Other listed operation types within an auditorium must be reported on a separate line, such as performing arts facilities, indoor sports arenas or indoor ice rinks*
- Indoor sports arenas
  - *Can be for single or multiple sports.*
- Indoor ice rinks
- Indoor swimming pools
  - *Indoor pools with support facilities including change rooms and meeting rooms.*
- Gyms and indoor courts for playing tennis, basketball or other sports
- Ambulance stations and associated offices and facilities
  - *Buildings/facilities used for emergency medical services. For example: Paramedic and Ambulance Depot*
- Fire stations and associated offices and facilities
- Police stations and associated offices and facilities
  - *Police Detachments, Police Headquarters, Jails*
- Storage facilities where equipment or vehicles are maintained, repaired or stored
  - *For example: Works Maintenance Facility*
- Parking garages
  - *Reporting is only required for parking garages that are heated or cooled (conditioned). For example: Bus Garage, Bus Depot*

Municipal service boards are required to report for the following operation types:

- Facilities related to the treatment of water
- Facilities related to the treatment of sewage
- Facilities related to the pumping of water
- Facilities related to the pumping of sewage

Hospitals are required to report for the following operation types:

- Facilities used for hospital purposes
- Administrative offices and related facilities

School boards are required to report for the following operation types:

- School
- Administrative offices and related facilities
- Multi use
  - This category is only for buildings that have school and school board administrative offices and related facilities within the same building.
- Parking garages
  - Reporting is only required for parking garages that are heated or cooled (conditioned).

Colleges and universities are required to report for the following operation types:

- Administrative offices and related facilities
- Administrative and related facilities includes academic and administrative offices
- Classrooms and related facilities
- Laboratories
- Student residences
  - *Reporting is only required for student residences that have more than three storeys or a building area of more than 600 square metres.*
- Student recreational facilities and athletic facilities
- Library
- Parking garage
  - *Reporting is only required for parking garages that are heated or cooled (conditioned).*
  - *Organizations can include non-designated operations in their 5-year energy CDM plans.*

### 3.5.1 Are public agencies to report for facilities with an Operation Type that is not listed?

Each public agency is only required to report for operation types listed on the Template for its sector. Public agencies do not have to report the energy use for facilities or parts of facilities that have an operation type that is not listed on the Template for its sector. Operation types that are not listed in the regulation may be included in the organization's CDM plan.

### 3.5.2 Is reporting required for municipal boards such as Library Boards, Arena Boards and Community Centre Boards?

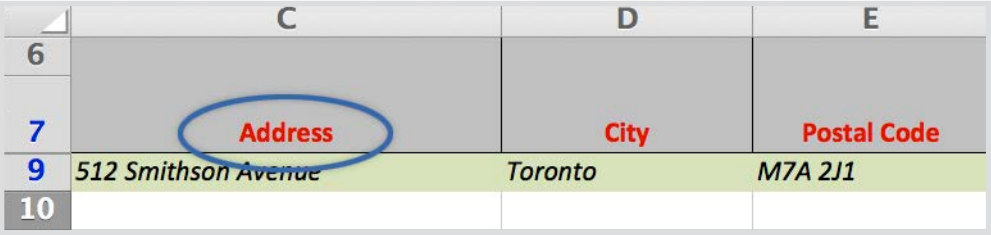
No. Municipal Service Boards are only required to report on water/sewage treatment or pumping buildings/facilities.

### 3.5.3 How do public agencies report the energy usage for a building or facility that contains more than one operation type?

Public agencies are required to report separately on a new line within the Template for each operation type within a building or facility. Public agencies may use the same Operation Name and Address for each of the separate entries in this case. If each operation type is not metered or tracked separately for an energy type purchased and consumed, see section 2.9.2 for details on how to allocate the energy purchased and consumed by operation type.

Reporting by operation type will provide more useful data for public agencies. Different operation types have different energy use intensities and having data on energy use by operation type will help public agencies focus on the best opportunities for energy conservation. Having energy use data by operation type will also enable public agencies to compare energy intensity between facilities that have the same energy usage characteristics.

## 3.6 ADDRESS



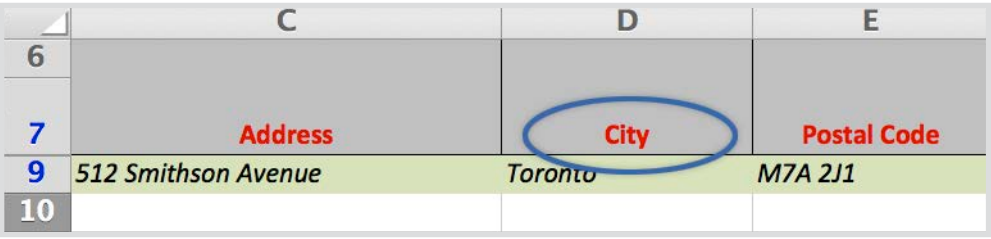
| | C | D | E |
|---|---|---|---|
| 6 | | | |
| 7 | Address | City | Postal Code |
| 9 | 512 Smithson Avenue | Toronto | M7A 2J1 |
| 10 | | | |

Enter the site address (not the mailing address) in which the building or facility is located, including street number and street name. Post office box addresses should not be used.

### 3.6.1 How should public agencies report for multiple buildings/facilities that have the same address?

Reporting is required for each building, even if multiple buildings/facilities have the same address.

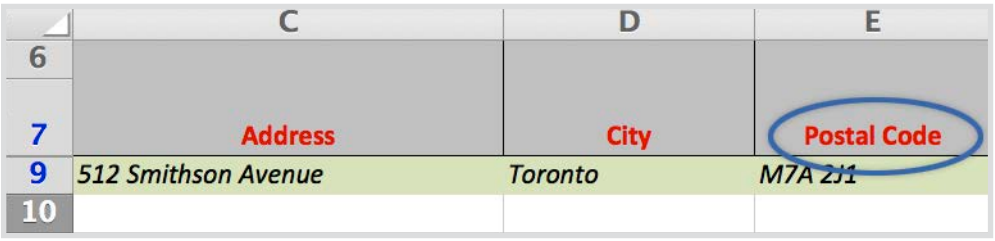
## 3.7 CITY



| | C | D | E |
|---|---|---|---|
| 6 | | | |
| 7 | Address | City | Postal Code |
| 9 | 512 Smithson Avenue | Toronto | M7A 2J1 |
| 10 | | | |

Enter the city/town/municipality in which the building/facility is located.

## 3.8 POSTAL CODE



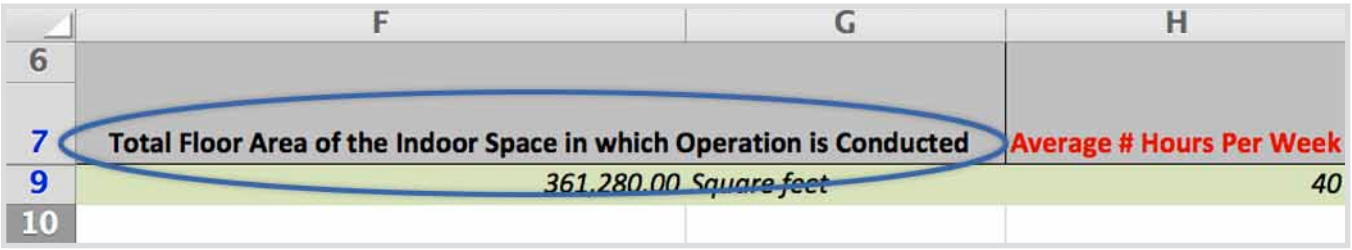
| | C | D | E |
|---|---|---|---|
| 6 | | | |
| 7 | Address | City | Postal Code |
| 9 | 512 Smithson Avenue | Toronto | M7A 2J1 |
| 10 | | | |

Enter the postal code for the site address of the building or facility. You will need to enter letters in caps with a space between the three digits, e.g., M1E 3S7.

### 3.8.1 What could a public agency do if the facility site address does not have a postal code?

Public agencies can use Canada Post's online postal code lookup **http://www.canadapost.ca/cpotools/apps/fpc/personal/findByCity?execution=e1s1** to find the postal code for a facility address. If there is no postal code for the site address, use the postal code for an immediately adjacent building/facility.

## 3.9 TOTAL FLOOR AREA OF THE INDOOR SPACE IN WHICH OPERATION IS CONDUCTED



| | F | G | H |
|---|---|---|---|
| 6 | | | |
| 7 | Total Floor Area of the Indoor Space in which Operation is Conducted | | Average # Hours Per Week |
| 9 | 361,280.00 Square feet | | 40 |
| 10 | | | |

Total floor area is the total number of square feet or square meters measured between the principal exterior surfaces of the enclosing fixed walls, including vent shafts and stairwells. Also note the following:

- Existing atria should only include the base floor area that it occupies;
- Interstitial (plenum) space between floors should not be included in total;
- Total floor area is not the same as leasable space.

### 3.9.1 Where can public agencies find the total floor area for an operation?

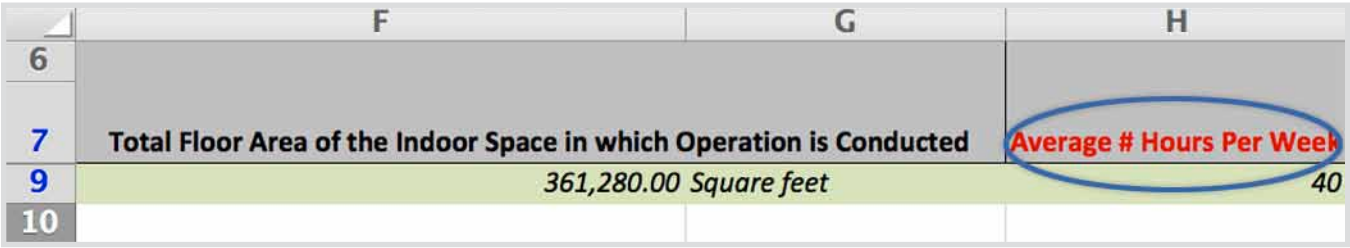
If a public agency does not have a digital breakdown of total floor area for its operations, the best place to find this information is from building blueprints. Public agencies may also have to do their own measurements or hire a third party to do the measurements. Please note that, if there are multiple operation types within a building, measurements of the floor area for each Operation Type is required.

### 3.9.2 Should parking areas (connected garages or underground) be included in the a building/facility's total floor area calculations?

No. Parking areas should not be included in total floor area calculations.

Parking garages should only be included in the reporting by a public agency if they are heated or cooled and in respect of which the public agency is issued the invoices and is responsible for making the payments for the building or facility's energy consumption. If this is the case parking garages will need to be reported on a separate line in the Template with the "parking garage" operation type.

## 3.10 AVERAGE # HOURS PER WEEK



| | F | G | H |
|---|---|---|---|
| 6 | | | |
| 7 | **Total Floor Area of the Indoor Space in which Operation is Conducted** | | **Average # Hours Per Week** |
| 9 | *361,280.00* | *Square feet* | *40* |
| 10 | | | |

Average # Hours Per Week is the number of hours per week that a building or facility (or a space within a building or facility being reported as a separate operation type) is occupied by at least 75% of the occupants, and is therefore considered occupied.

- A 24-hour facility operates 168 hours per week.
- Office space operation time averages 65 hours per week, rather than 40 hours per week.

### 3.10.1 How should public agencies report for facilities that are operated seasonally?

For facilities with a schedule that varies during the year, public agencies could use the Average # Hours Per Week for the schedule most often followed. To describe seasonality, organizations can use the Comments column, see section 3.28.

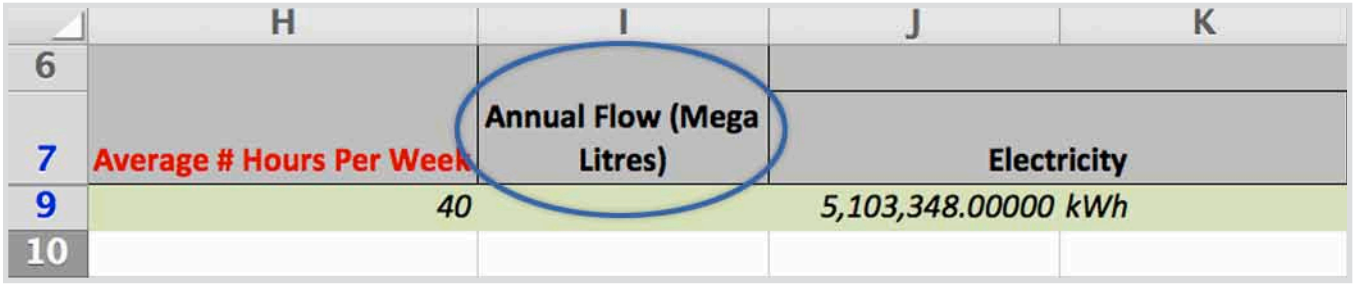
### 3.10.2 Should holidays and other planned closures be included in average # hours per week calculations?

Yes.

### 3.10.3 How could average hours per week be reported for facilities involved with the treatment or pumping of water or sewage?

Municipal Service Boards are not required to report average # hours per week is not required to be reported for facilities involved with the treatment or pumping of water or sewage. Municipalities could report 168 hours, which is constant use.

## 3.11 ANNUAL FLOW (MEGA LITRES)



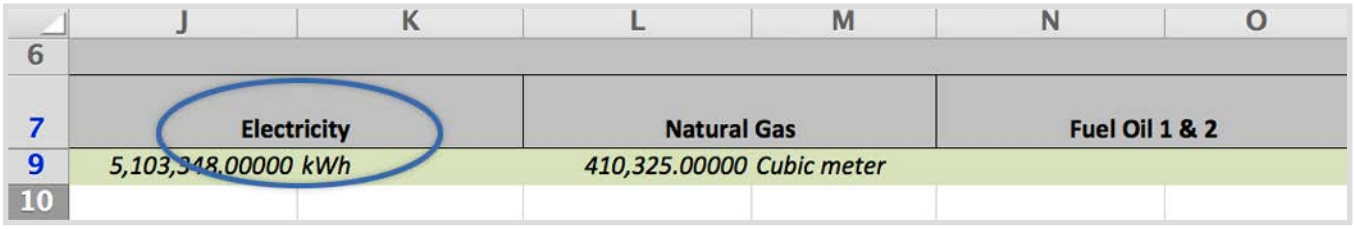
| | H | I | J | K |
|---|---|---|---|---|
| 6 | | | | |
| 7 | Average # Hours Per Week | Annual Flow (Mega Litres) | Electricity | |
| 9 | 40 | | 5,103,348.00000 kWh | |
| 10 | | | | |

The Annual Flow is the volume of water pumped or treated by a facility in a year in Mega Litres (ML). The Annual Flow is reported in order to calculate energy intensity for flow volumes. This will enable each public agency to benchmark the performance of its building/facility and monitor efficiency improvements relative to flow volumes.

### 3.11.1 What if the same water travels through several pumping facilities?

Where no flow meter is in place flow volume can be calculated by multiplying the hours of operation by the manufacturer's nameplate rating for the pump.

## 3.12 ELECTRICITY



| | J | K | L | M | N | O |
|---|---|---|---|---|---|---|
| 6 | | | | | | |
| 7 | Electricity | | Natural Gas | | Fuel Oil 1 & 2 | |
| 9 | 5,103,348.00000 kWh | | 410,325.00000 Cubic meter | | | |
| 10 | | | | | | |

Report electricity purchased and consumed in kilowatt hours (kWh) for all operation types that reporting is required for. See section 2.9.2 for details on dividing energy among operation types for buildings with one meter. See section 2.9.4 for details on allocating electricity purchased to the correct reporting period.

### 3.12.1 Should metered usage/consumption or adjusted usage/consumption be reported?

Public agencies are to report metered usage/consumption. The adjusted usage/consumption accounts for line loss and public agencies do not have to report electricity usage/consumption adjusted for line loss (e.g., energy lost through heat, or unbilled revenue). If a public agency uses a utility tracking tool, it should be confirmed that the electricity being tracked is the metered usage/consumption.
See **Appendix A** for sample electricity bills that show where to find the metered usage/consumption.

### 3.12.2 What if a public agency pays a flat rate to a retailer for electricity?

The retailer will still report the metered usage/consumption of electricity to the public agency and this will be used for reporting.

### 3.12.3 Are public agencies required to report electricity generated on site from renewable energy source (e.g. solar or wind)?

No. Not in the Template, however public agencies have to include in their CDM plan a description of any renewable energy generation facility operated by the public agency and the amount of energy produced on an annual basis by the facility. This should also include a description of:

- The ground source energy harnessed, if any, by ground source heat pump technology
- The solar energy harnessed, if any, by thermal air technology or thermal water technology
- The proposed plan, if any, to operate heat pump technology, thermal air technology or thermal water technology in the future

### 3.12.4 How should public agencies report electricity purchased from renewable sources?

The Template does not and will not include "green" electricity purchased from green retailers. A public agency may include such purchasing practices in its multi-year conservation and demand management plan.

## 3.13 NATURAL GAS

| | J | K | L | M | N | O |
|---|---|---|---|---|---|---|
| 6 | | | | | | |
| 7 | Electricity | | Natural Gas | | Fuel Oil 1 & 2 | |
| 9 | 5,103,348.00000 kWh | | 410,325.00000 Cubic meter | | | |
| 10 | | | | | | |

Report natural gas purchased and consumed in cubic meters ($m^3$) for all operation types that reporting is required for. See section 2.9.2 for details on dividing energy among operation types for buildings/facilities with one meter. See section 2.9.4 for details on allocating natural gas purchased to the correct reporting period.

### 3.13.1 Should metered usage/consumption or adjusted usage/consumption be reported?

Public agencies should report adjusted usage/consumption. Natural gas bills are adjusted by a barometric/atmospheric pressure factor. Generally the adjustment factor is very small, but using it provides standardized volume data. If a public agency uses a utility tracking tool, it should confirm that the natural gas being tracked is the adjusted usage/consumption. See Appendix A for sample natural gas bills that show where to find the adjusted usage/consumption.

### 3.13.2 What if a public agency pays a flat rate to a retailer for natural gas?

The retailer will still report the metered usage/consumption of natural gas to the public agency and this will be used for reporting.

### 3.13.3 How should we report natural gas purchased from renewable sources?

The Template does not and will not include "green" natural gas purchased from green retailers. A BPS organization is however free to include such purchasing practices in CDM plans.

### 3.13.4 Do I need to report natural gas used to run an emergency or back-up generator?

No.

### 3.13.5 How could public agencies report natural gas used to generate district heating?

Public agencies that purchase and consume natural gas to generate district heating will need to allocate the amount of natural gas used by this district heating system to all of the buildings/facilities served by the district heating system. The allocation will also need to be adjusted by the percentage operational efficiency of the district heating system. The allocation could be based on the following formula:

$$G_r = G \cdot EF \cdot \left( \frac{a_r}{a} \right)$$

**Where:**

- **$G_r$** is the natural gas use to be attributed to an operation type for which reporting is required,
- **G** is the total natural gas used by the district energy facility,
- **EF** is the percentage operational efficiency factor (e.g. 0.8 for 80% operational efficiency),
- **$a_r$** is the floor area of the operation type being reported for, and
- **a** is the total conditioned floor area served by the district energy facility

### 3.13.6 How could public agencies report natural gas used to generate district heating that is distributed to other users?

If a public agency distributes district energy to other users outside of the public agency, the natural gas used to generate this energy must be subtracted from total natural gas used to generate the district energy. The total natural gas used by the district energy facility will be modified using the following formula:

$$G = G_t \cdot \left(1 - \frac{E}{E_t}\right)$$

**Where:**

- **G** is the natural gas used by the district energy facility to provide energy for the public agency's buildings/facilities,
- $\mathbf{G_t}$ is the total natural gas used by the district energy facility,
- **E** is the district energy distributed to other users outside of the public agency, and
- $\mathbf{E_t}$ is the total energy generated by the district energy facility.

**— EXAMPLE —**

**A public agency operates a district heat generation facility powered by natural gas that has an operational efficiency of 80%. The district heat generation facility used 1,200,000 $m^3$ of natural gas in the reporting year to produce 30,000 GJ of district heat. 10,000 GJ of the district heat was sold to a user outside the public agency. The remaining 20,000 GJ was used to heat a 6,000 $m^2$ building/facility that reporting is required for by the public agency and a 4,000 $m^2$ building/facility for which reporting is not required.**

**The first step is to calculate G, the natural gas used by the district energy facility to provide energy for the public agency's buildings/facilities. This is done by using the formula to subtract the natural gas used to produce district heat that is not used by the public agency. In this example, $G_t$ is 1,200,000 $m^3$, E is 10,000 GJ, and $E_t$ is 30,000 GJ. Thus,**

$$G = 1{,}200{,}000m^3 \cdot \left(1 - \frac{10{,}000}{30{,}000}\right) = 800{,}000m^3$$

**The next step is to allocate the natural gas used by the district energy facility to the 6,000 $m^2$ building/facility for which reporting is required. In this example, G was calculated to be 800,000 $m^3$, EF is 0.8, $a_r$ is 6,000 $m^2$, and a is 10,000 $m^2$. Thus,**

$$G_r = 800{,}000m^3 \cdot 0.8 \cdot \left(\frac{6{,}000m^2}{10{,}000m^2}\right) = 384{,}000m^3$$

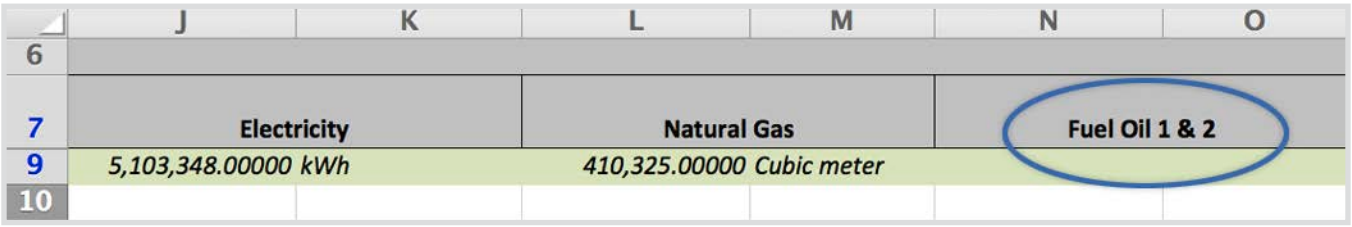
**In this example, the public agency would report 384,000 $m^3$ of natural gas for the 6,000 $m^2$ building.**

A Microsoft Office Excel based tool is available to help public agencies with these calculations. Use of this the tool is optional and is only intended as a resource to provide further assistance. The file is called **"Calculator for allocating energy use by Operation Type (hospital, municipal, post-secondary and school board)"** and can be downloaded from the Toolkit section of the reporting portal.

### 3.13.7 How could public agencies report natural gas used in a combined heat and power (cogeneration) facility?

The same methodology outlined in section 3.13.5 above could be used to allocate natural gas used in combined heat and power (cogeneration) facility.

## 3.14 FUEL OIL 1 & 2




Report fuel oil 1 & 2 purchased and consumed in litres (L) for all operation types that reporting is required for. See section 2.9.2 for details on reporting energy for buildings/facilities where fuel oil is not tracked individually for each operation type. See section 2.9.5 for details on allocating fuel oil purchased to the correct reporting period.

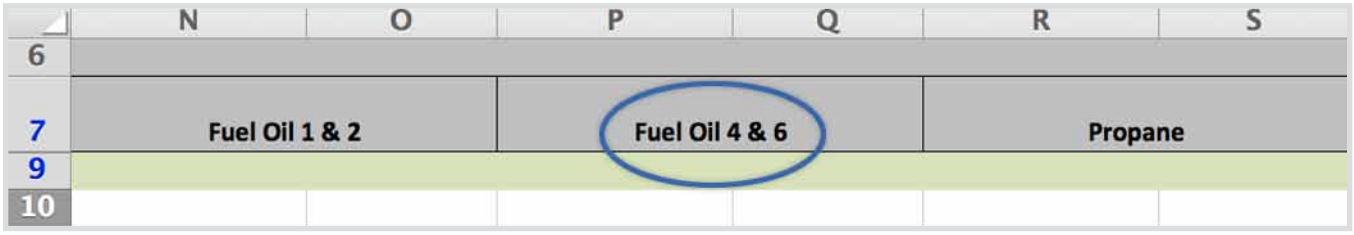
### 3.14.1 Are public agencies required to report diesel used to run an emergency or back-up generator?

No.

### 3.14.2 Are public agencies required to report fuel oil used for the operation of vehicles?

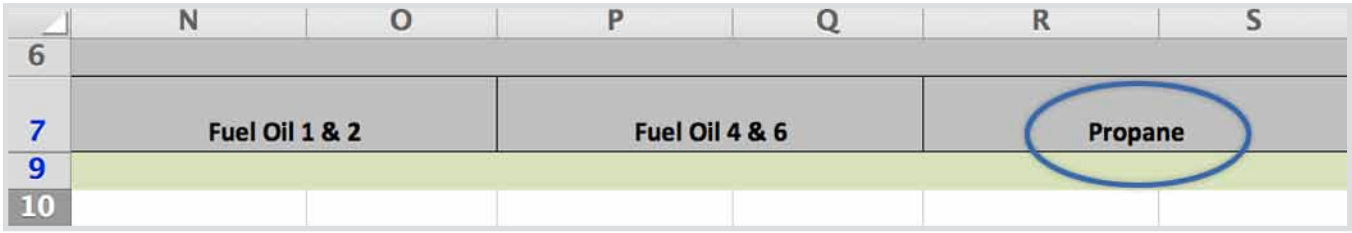
No. Only fuel oil that is used for building/facilities operations (heating, etc.) is to be reported. Organizations can report on their fleet operations in their five-year energy conservation and demand management plan.

## 3.15 FUEL OIL 4 & 6




Report fuel oil 4 & 6 purchased and consumed in litres (L) for all operation types that reporting is required for. See section 2.9.2 for details on reporting energy for buildings/facilities where fuel oil is not tracked individually for each operation type. See section 2.9.5 for details on allocating fuel oil purchased to the correct reporting period.

## 3.16 PROPANE

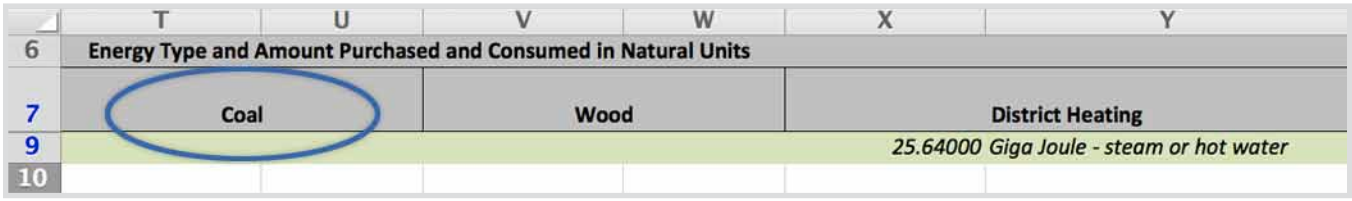



Report propane purchased and consumed in litres (L) for all Operation Types that reporting is required for. See section 2.9.2 for details on reporting energy for buildings where propane is not tracked individually for each Operation Type. See section 2.9.6 for details on allocating propane purchased to the correct reporting period.

### 3.16.1 Do I need to report propane used to run an emergency or back-up generator?

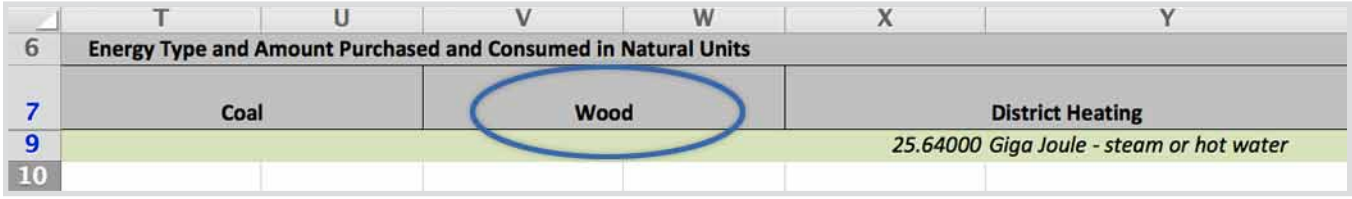
No.

## 3.17 COAL




Report coal purchased and consumed in metric tonnes (t) for all operation types that reporting is required for. See section 2.9.2 for details on reporting energy for buildings/facilities where coal is not tracked individually for each operation type. See section 2.9.5 for details on allocating coal purchased to the correct reporting period.

## 3.18 WOOD

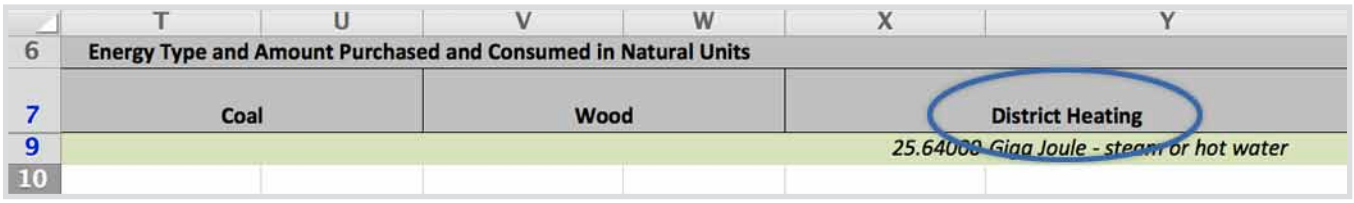



Report wood purchased and consumed in metric tonnes (t) for all operation types that reporting is required for. See section 2.9.2 for details on reporting energy for buildings/facilities where wood is not tracked individually for each operation type. See section 2.9.5 for details on allocating wood purchased to the correct reporting period.

### 3.18.1 Does wood include wood pellets?

Yes.

## 3.19 DISTRICT HEATING

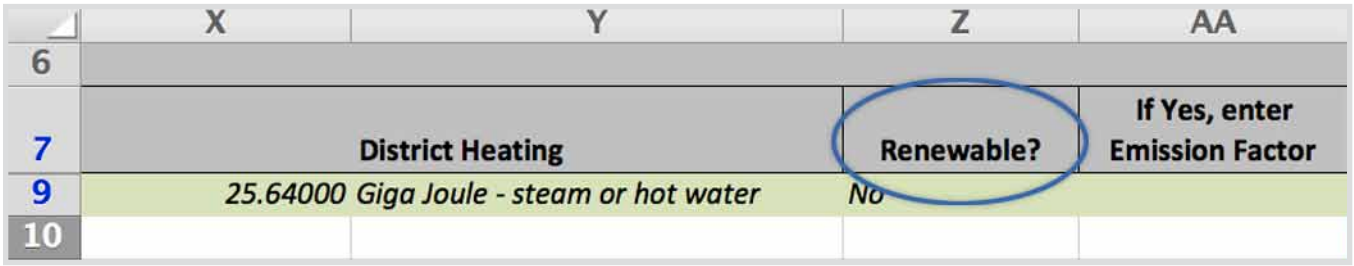


| | T | U | V | W | X | Y |
|---|---|---|---|---|---|---|
| 6 | Energy Type and Amount Purchased and Consumed in Natural Units | | | | | |
| 7 | Coal | | Wood | | District Heating | |
| 9 | | | | | 25.64000 Giga Joule - steam or hot water | |
| 10 | | | | | | |

Report district heating purchased and consumed in metric tonnes of steam (t), GigaJoules of steam or hot water (GJ), or kilolitres of hot water (kL) for all operation types that reporting is required for. See section 2.9.2 for details on dividing energy among operation types for buildings/facilities with one meter. See section 2.9.4 for details on allocating district heating purchased to the correct reporting period.

If a public agency generates district heating, it is not reported under district heating. See section 3.13.5 for details on how to report for natural gas powered district heating generated by a public agency.

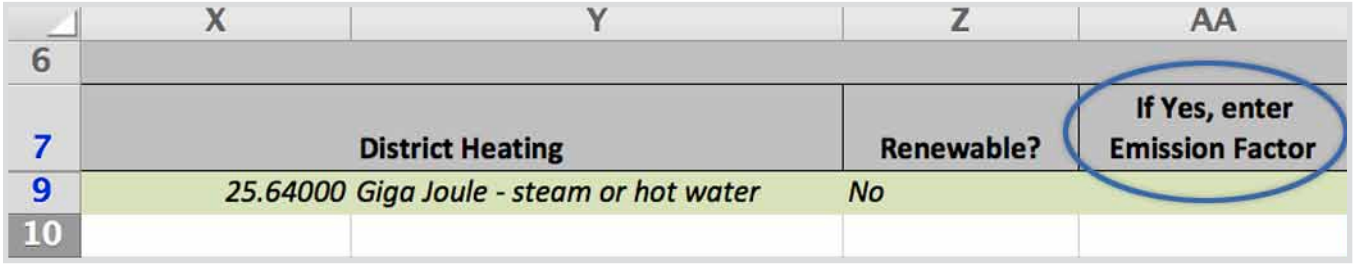
## 3.20 RENEWABLE?



| | X | Y | Z | AA |
|---|---|---|---|---|
| 6 | | | | |
| 7 | District Heating | | Renewable? | If Yes, enter Emission Factor |
| 9 | 25.64000 | Giga Joule - steam or hot water | No | |
| 10 | | | | |

Indicate "Yes" if the district heating purchased is generated from a renewable energy source. A renewable energy source means an energy source that is renewed by natural processes and includes wind, water, biomass, biogas, biofuel, solar energy, geothermal energy, or tidal forces.

## 3.21 IF YES, ENTER EMISSION FACTOR



| | X | Y | Z | AA |
|---|---|---|---|---|
| 6 | | | | |
| 7 | District Heating | | Renewable? | If Yes, enter Emission Factor |
| 9 | 25.64000 | Giga Joule - steam or hot water | No | |
| 10 | | | | |

The Emission Factor is the ratio of GHG emissions produced to generate a unit of energy. In the case of district heating energy from a renewable source, there is still a certain level of greenhouse gas emissions released in the process of generating and delivering the energy to the end user.

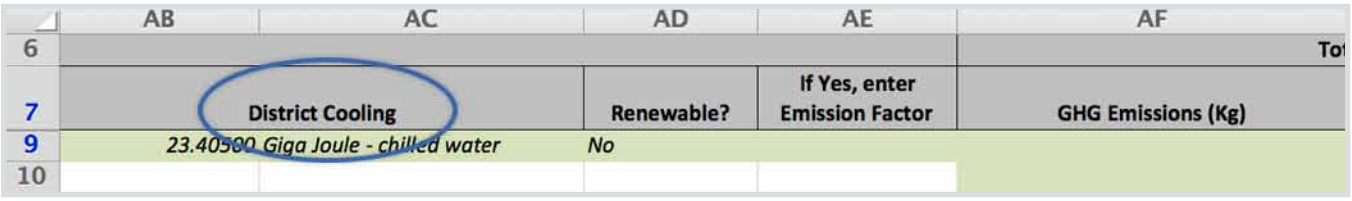
### 3.21.1 How do public agencies find the Emission Factor for District Heating energy purchased and consumed from a Renewable source?

The public agency could request the Emission Factor for the district heating energy purchased and consumed from a renewable source from the company that it purchases the district heating energy from.

### 3.21.2 What should public agencies do if they cannot get their Emission Factor for District Heating energy purchased and consumed from a Renewable source?

Any public agency that cannot get its Emission Factor for district heating energy purchased and consumed from a renewable source should enter zero (0) under Emission Factor.

## 3.22 DISTRICT COOLING

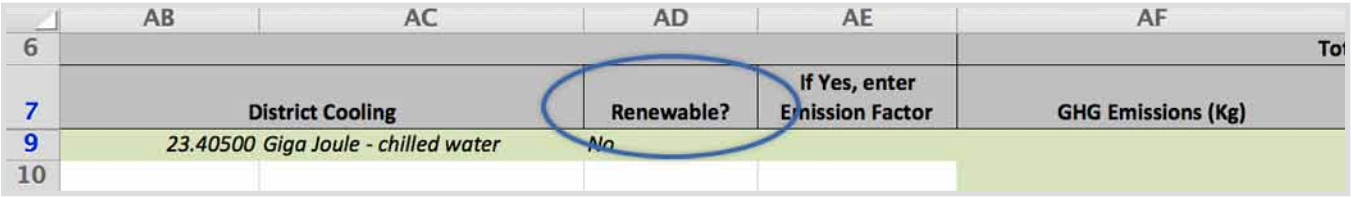


| | AB | AC | AD | AE | AF |
|---|---|---|---|---|---|
| 6 | | | | | To |
| 7 | District Cooling | | Renewable? | If Yes, enter Emission Factor | GHG Emissions (Kg) |
| 9 | 23.40500 Giga Joule - chilled water | | No | | |
| 10 | | | | | |

Report district cooling purchased and consumed in GigaJoules of chilled water (GJ), or kilolitres of chilled water (kL) for all operation types that reporting is required for. See section 2.9.2 for details on dividing energy among operation types for buildings/facilities with one meter. See section 2.9.4 for details on allocating district cooling purchased to the correct reporting period.

If a public agency generates district cooling, it is not reported under district cooling. See section 3.13.5 for details on how to report for natural gas powered district cooling generated by a public agency.

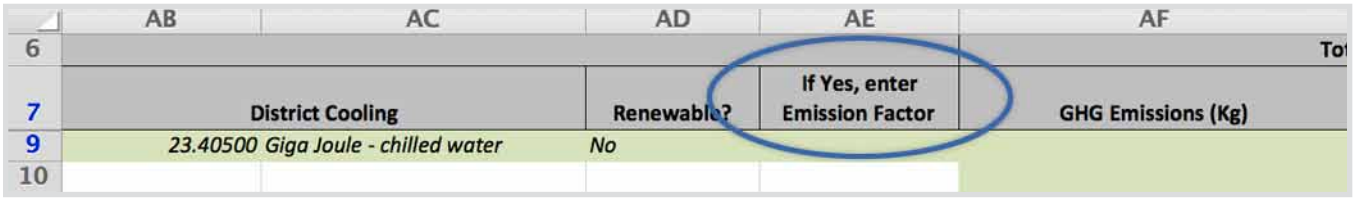
## 3.23 RENEWABLE?



| | AB | AC | AD | AE | AF |
|---|---|---|---|---|---|
| 6 | | | | | To |
| 7 | District Cooling | | Renewable? | If Yes, enter Emission Factor | GHG Emissions (Kg) |
| 9 | 23.40500 Giga Joule - chilled water | | No | | |
| 10 | | | | | |

Indicate "Yes" if the district cooling purchased is generated from a renewable energy source. A renewable energy source means an energy source that is renewed by natural processes and includes wind, water, biomass, biogas, biofuel, solar energy, geothermal energy, or tidal forces.

## 3.24 IF YES, ENTER EMISSION FACTOR



| | AB | AC | AD | AE | AF |
|---|---|---|---|---|---|
| 6 | | | | | To |
| 7 | District Cooling | | Renewable? | If Yes, enter Emission Factor | GHG Emissions (Kg) |
| 9 | 23.40500 | Giga Joule - chilled water | No | | |
| 10 | | | | | |

The Emission Factor is the ratio of greenhouse gas emissions produced to generate a unit of energy. In the case of district cooling energy from a renewable source, there is still a certain level of greenhouse gas emissions released in the process of generating and delivering the energy to the end user.

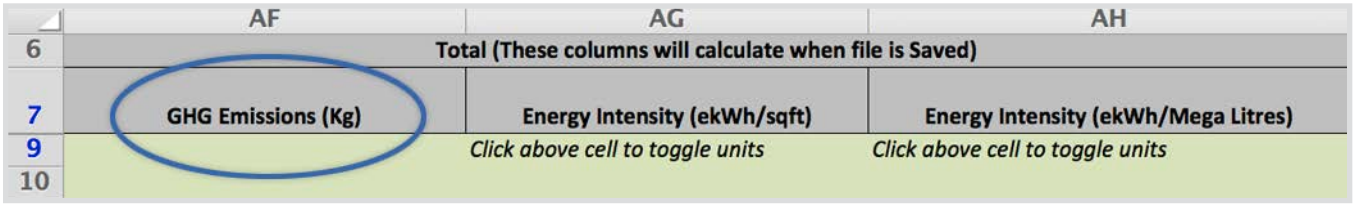
### 3.24.1 How do public agencies find the Emission Factor for district cooling energy purchased and consumed from a renewable source?

The public agency could request the Emission Factor for the district cooling energy purchased and consumed from a renewable source from the company that it purchases the district cooling energy from.

### 3.24.2 What should public agencies do if they cannot get their Emission Factor for district cooling energy purchased and consumed from a renewable source?

Any public agency that cannot get its Emission Factor for district cooling energy purchased and consumed from a renewable source should enter zero (0) under Emission Factor.

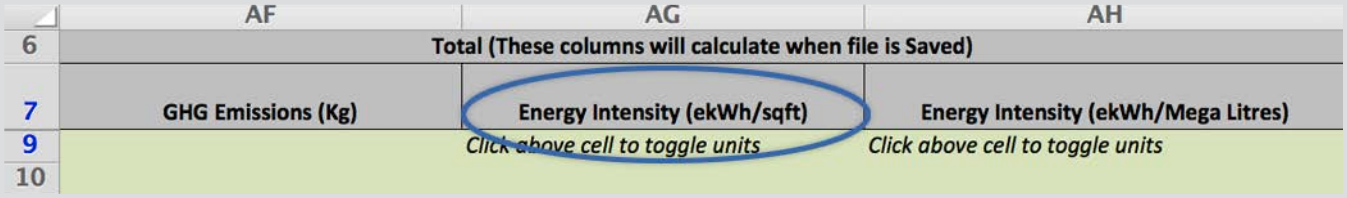
## 3.25 TOTAL: GHG EMISSIONS (Kg)



| | AF | AG | AH |
|---|---|---|---|
| 6 | Total (These columns will calculate when file is Saved) | | |
| 7 | GHG Emissions (Kg) | Energy Intensity (ekWh/sqft) | Energy Intensity (ekWh/Mega Litres) |
| 9 | | Click above cell to toggle units | Click above cell to toggle units |
| 10 | | | |

GHG Emissions reports the kilograms (kg) of equivalent carbon dioxide ($CO_2$) units of GHG emissions attributed to the energy purchased and consumed for each operation type reported. The GHG emission factors are base on Environment Canada's National Inventory. This field does not need to be filled in. It will be calculated automatically when the user saves the file.

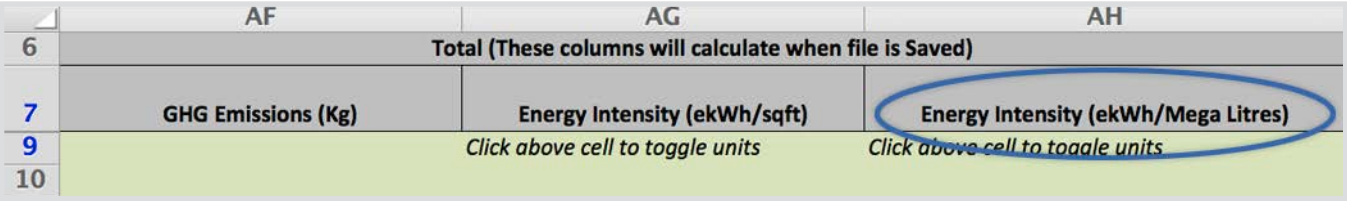
## 3.26 TOTAL: ENERGY INTENSITY (ekWh/sqft)



| | AF | AG | AH |
|---|---|---|---|
| 6 | Total (These columns will calculate when file is Saved) | | |
| 7 | GHG Emissions (Kg) | Energy Intensity (ekWh/sqft) | Energy Intensity (ekWh/Mega Litres) |
| 9 | | *Click above cell to toggle units* | *Click above cell to toggle units* |
| 10 | | | |

Energy Intensity reports the equivalent kilowatt hours per square foot (ekWh/sqft) of each operation type reported. The Energy Intensity is calculated based on all of the energy purchased and consumed for each operation type reported relative to floor area. This allows comparison of the efficiency of the same or different operation types within facilities of a public agency or benchmarking against the same operation type province-wide. This field does not need to be filled in. It will be calculated automatically when the user saves the file. The energy intensity value for each fuel type is based on Statistics Canada's Energy Handbook.

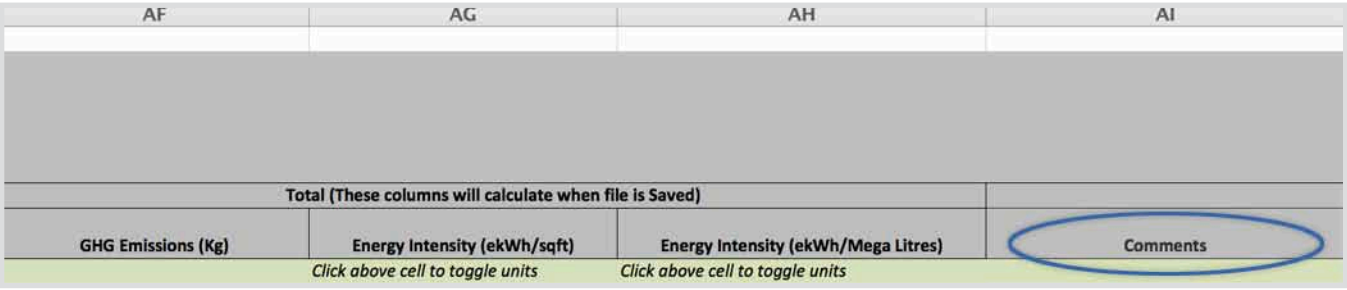
## 3.27 TOTAL: ENERGY INTENSITY (ekWh/MEGA LITRES)



| | AF | AG | AH |
|---|---|---|---|
| 6 | Total (These columns will calculate when file is Saved) | | |
| 7 | GHG Emissions (Kg) | Energy Intensity (ekWh/sqft) | Energy Intensity (ekWh/Mega Litres) |
| 9 | | *Click above cell to toggle units* | *Click above cell to toggle units* |
| 10 | | | |

Energy Intensity reports the equivalent kilowatt hours per Megalitre (ekWh/ML) of each operation type reported. The Energy Intensity is calculated based on all of the energy purchased and consumed for each operation type reported relative to annual flow of water processed or pumped by a facility. This allows comparison of the efficiency of the same or different operation types within facilities of a public agency or benchmarking against the same operation type province-wide. This field does not need to be filled in. It will be calculated automatically when the user saves the file.

## 3.28 COMMENTS FIELD (*OPTIONAL*)



| AF | AG | AH | AI |
|---|---|---|---|
| | | | |
| Total (These columns will calculate when file is Saved) | | | |
| GHG Emissions (Kg) | Energy Intensity (ekWh/sqft) | Energy Intensity (ekWh/Mega Litres) | Comments |
| | *Click above cell to toggle units* | *Click above cell to toggle units* | |

This optional field is available to add any additional information related to your building operation that you wish to include.

# 4.0 AUTOMATED ERROR CHECKING

WHEN THE TEMPLATE IS SAVED, built in macros will pick up on any errors or omissions for the mandatory data fields.

**In order to save the Template, every mandatory data field (indicated with red text) in that particular row must be fully completed. Incomplete rows will result in an error message when attempting to save the file.**

# 5.0 MANUAL DATA CHECKING

AFTER A USER HAS COMPLETED and saved the Template for a public agency, it is recommended that a few data checking procedures are undertaken including:

- Counting number of buildings/facilities to make sure that the number reported in the Template matches the actual number of facilities.
- Sorting the data by operation name to catch any repeats.
- Sorting the data by Total Floor Area. Look for unusually small or large numbers.
- Sorting the data by Average # of Hours per Week. Look for unusually small or large numbers.
- Sorting the data by each energy type that has reported data and look for unusually small or large numbers.

We also suggest having the Template reviewed by someone other than the person who completed it and perform some of the data checking procedures.

# 6.0 UPLOADING OF TEMPLATE

IN ORDER AVOID ANY ERRORS, please double check that the correct Template is being uploaded and marked final.

This section will provide detailed instructions for the following:

- Log in
- Download Template
- Entering data
- Uploading Template to the website
- System status of your file

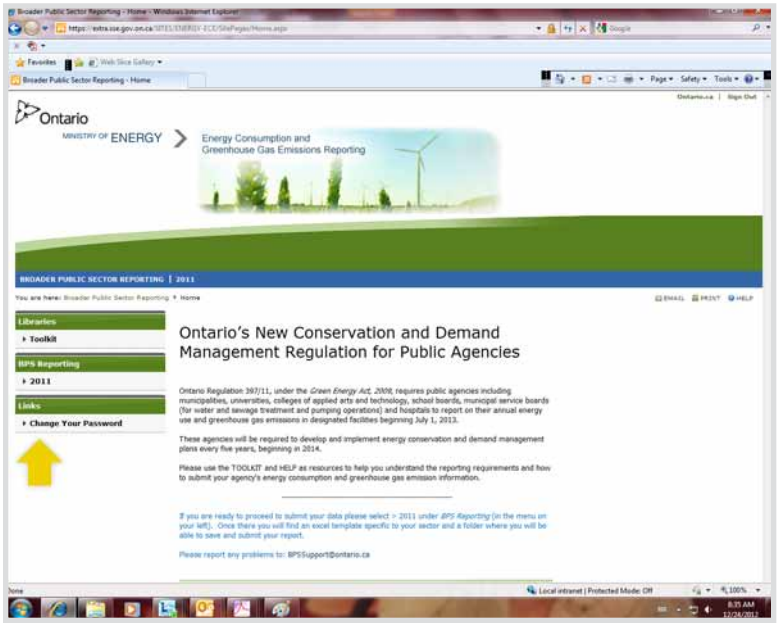
Please note that the images found in this guide were retrieved as a 'Municipality' using Internet Explorer (version 8). Images in this guide will not reflect the exact webpage for every organization in each sub sector, but will reflect similar content to web pages that you will encounter.

## 6.1 LOG IN

Access the website at
**https://extra.sse.gov.on.ca/SITES/ENERGY-ECE/SitePages/Home.aspx**
and enter you user name and password provided by the Ministry of Energy (ENE).

Note that it is recommended to change your password to something you can remember easily (this is optional).

Once you have logged in, you will see the following screen:




**CHANGING YOUR PASSWORD**

If you would like to change your password from the initial password provided, under 'Links' please click on "Change Your Password" on the left-hand side sidebar on the webpage and fill in the blanks.

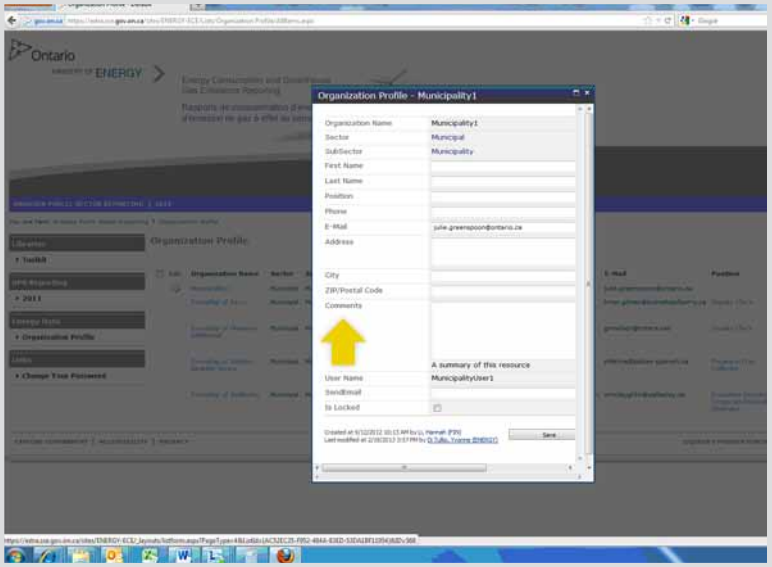
Click "Change Password" at the end to save the changes.

## 6.2 HOW TO CHANGE YOUR ORGANIZATION'S PROFILE

To change your organization's profile, under 'Energy Data' click on 'Organization Profile' on the left-handed side bar on the webpage.


Click on the edit button to bring up the profile. The first 3 fields and the "Username" field are locked. You may change any of the other fields.

If you wish to assign a second contact person for your organization, please include their contact information in the comment box provided. Please include their full name, title, phone number and email address.



## 6.3 DOWNLOAD TEMPLATE

To populate the Template of your specific sector, first you need to download it and save it to your computer.

Under 'BPS Reporting' click on "2011" on the left-hand side sidebar on the webpage.


After you click on "2011" the following screen will appear:


Under 'Submission File' please click on your sub sector's submission page. In this example, this is "Municipality Submission". The following screen will appear:

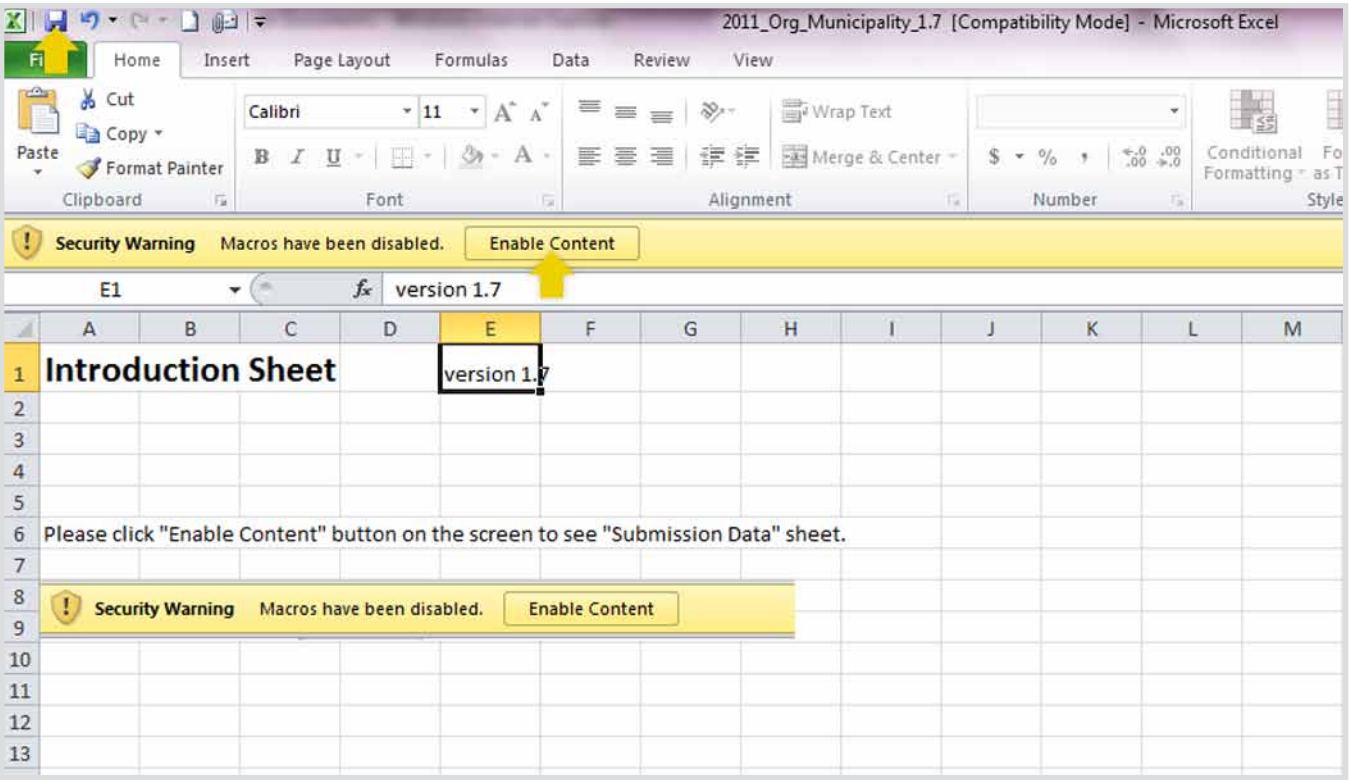

Now right click under "2011_Org_Municipality_1.6 and click on *Save Target As* as shown in the image below:


You now may choose a destination for the file and save it there.

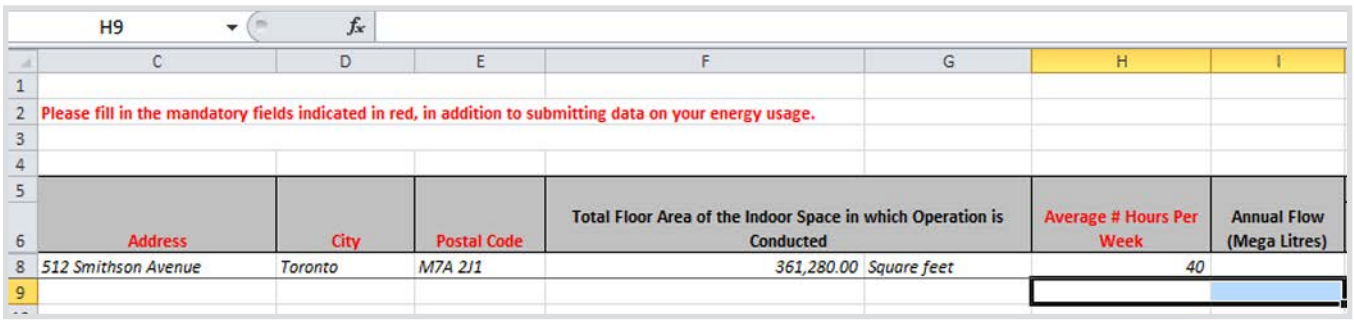
## 6.4 ENTERING DATA

Once you have saved the Template, open the file. You will see the view below.

- Click on Enable Content to allow the Template to work properly and also
- To ensure all the functions and formulas of the Template are active, save the Template file (once it has been opened)

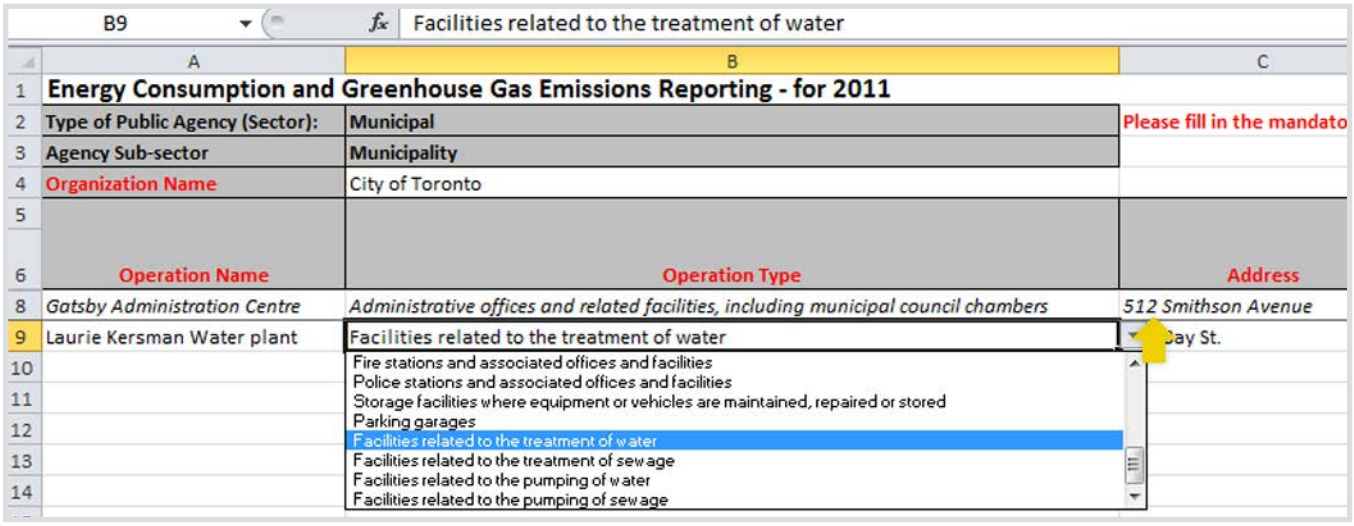


As soon as you click on Enable Content, you will be able to see the Template and its fields:



| | C | D | E | F | G | H | I |
|---|---|---|---|---|---|---|---|
| 1 | | | | | | | |
| 2 | Please fill in the mandatory fields indicated in red, in addition to submitting data on your energy usage. | | | | | | |
| 3 | | | | | | | |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | Address | City | Postal Code | Total Floor Area of the Indoor Space in which Operation is Conducted | | Average # Hours Per Week | Annual Flow (Mega Litres) |
| 8 | 512 Smithson Avenue | Toronto | M7A 2J1 | 361,280.00 | Square feet | 40 | |
| 9 | | | | | | | |

- Populate all the information as requested.
  - *Please note Organization Name is the Name of the Municipality (or the name of a College or University, Hospital, etc); whereas Operation Name is the name of the specific building/facility you are reporting on (Art Centre, Water Plant, Research Centre, etc.)*
  - *Please note that a drop down menu with all the operation type options will appear on the right hand side of the cell once you locate your cursor on the cell. See below:*



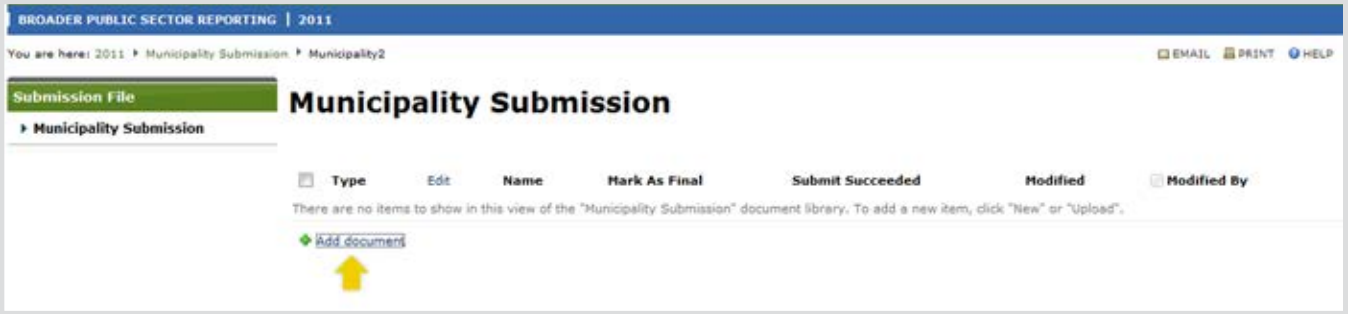
| | A | B | C |
|---|---|---|---|
| 1 | Energy Consumption and Greenhouse Gas Emissions Reporting - for 2011 | | |
| 2 | Type of Public Agency (Sector): | Municipal | Please fill in the mandato |
| 3 | Agency Sub-sector | Municipality | |
| 4 | Organization Name | City of Toronto | |
| 5 | | | |
| 6 | Operation Name | Operation Type | Address |
| 8 | Gatsby Administration Centre | Administrative offices and related facilities, including municipal council chambers | 512 Smithson Avenue |
| 9 | Laurie Kersman Water plant | Facilities related to the treatment of water | ay St. |
| 10 | | Fire stations and associated offices and facilities | |
| 11 | | Police stations and associated offices and facilities | |
| 12 | | Storage facilities where equipment or vehicles are maintained, repaired or stored | |
| 13 | | Parking garages | |
| 14 | | Facilities related to the treatment of water | |
| | | Facilities related to the treatment of sewage | |
| | | Facilities related to the pumping of water | |
| | | Facilities related to the pumping of sewage | |

  - *Remember filling in all red fields since these are mandatory for your operation type. More specifically Annual Flow for those facilities related to water and sewage treatment and Total Floor Area for all the rest type of buildings/facilities.*
  - *Please note the last three columns (GHG emissions and Energy Intensity) will automatically be calculated once the Template has been saved.*

## 6.5 UPLOADING TEMPLATE TO THE WEBSITE

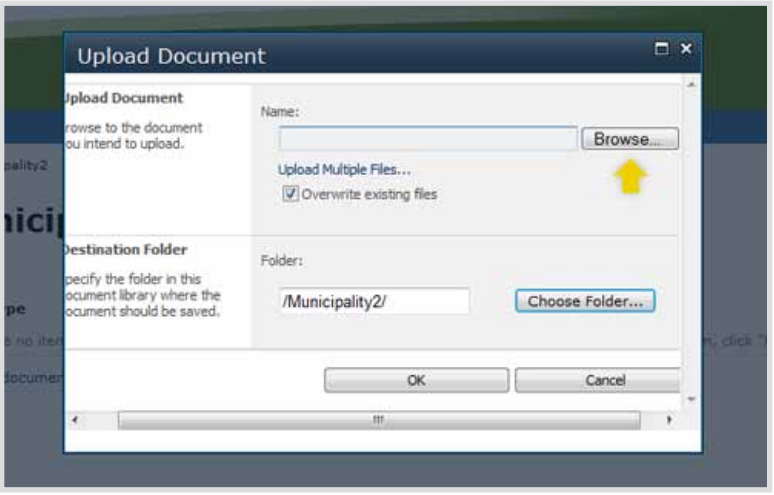
Once you complete populating the Template, you can now upload it to the site.

- Click on the folder icon with your Organization name
- Click on Add document



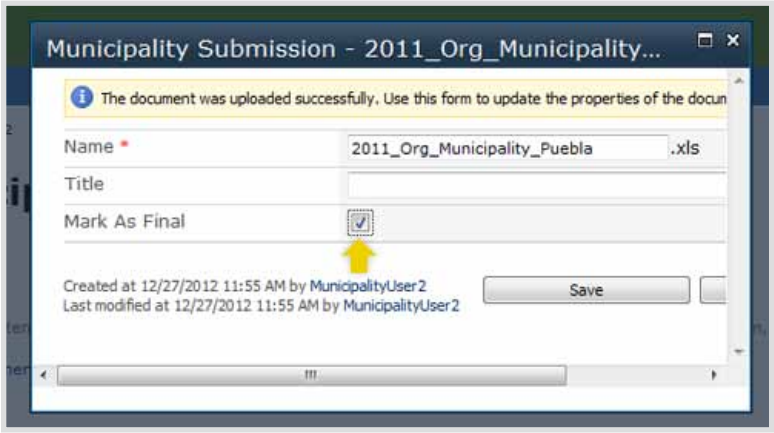

And the following screen will pop up:

- Click on Browse and find the location of where you saved your file and click OK




You will not be able to delete a file; however, you can overwrite the existing file every time you upload a new version of the file.

The following window will appear and you will have to name the Template with a standard naming convention. The name should be **2011_Org_Subsector Name_Organization Name**. In this example the name of the Municipality is Puebla and the file name is: **2011_Org_Municipality_Puebla**.



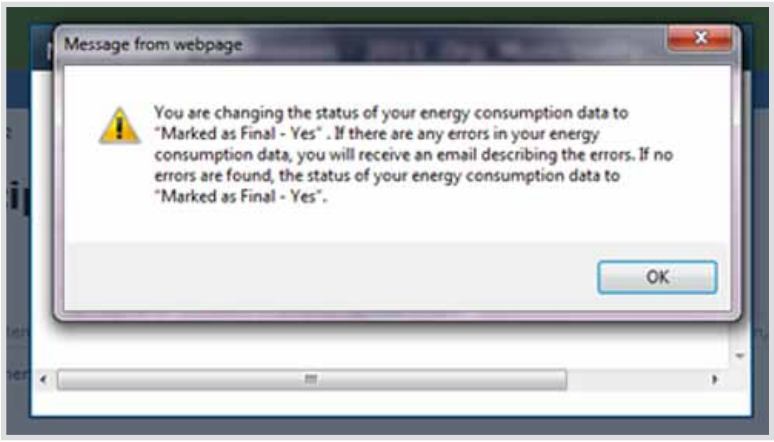

You may use a different name for the file by using the title field. It will only be for your own use.

Using a title is optional as you do not need one to proceed with uploading your file

The system will not review the status of your file unless you tick the field *Mark As Final*. This allows you to upload the file as many times as you need to.

Once your file is ready to be reviewed by the system, please click on *Mark As Final*.

The following window will confirm your choice.



## 6.6 SYSTEM STATUS OF YOUR FILE

Please note that after you have uploaded the file and marked it as final, the system automatically says "No" under "Submit Succeeded". The system looks for files that are marked as final once a day and if it does not detect errors, it will change the status under "Submit Succeeded" from "No" to "Yes". This means you have successfully completed your submission.

If there are errors detected, the status under "Submit Succeeded" will remain "No" and you will receive and email with the related notification.

# 7.0 TROUBLESHOOTING

## 7.1.1 If a number entered under an energy type how can it be deleted?

WHEN A USER TRIES TO delete a number entered under an energy type, the user will get the following error:


The user can delete data by right-clicking on the cell and selecting Clear Contents or click on the cell, and select Edit > Clear > Contents.

## 7.1.2 Why don't the totals for GHG Emissions and Energy Intensity calculate automatically?

The GHG Emissions and Energy Intensity values will calculate automatically when the user saves the file. The user of the Template must enable macros in Microsoft Excel in order for the GHG Emissions and Energy Intensity calculations to occur automatically when the file saves.

## 7.1.3 Why won't my file save?

A user must enter data into each of the mandatory fields (indicated with red text) in a row as well as for at least one energy type in order to be able to save the file. Incomplete rows will result in an error message when attempting to save.

If the user is working with a large number of facilities and would like to be able to save the file with incomplete information for each facility, the following workaround is suggested:

- With the Template open in Excel, Edit > Select All
- Edit > Copy
- File > New Blank Document
- Edit > Paste

This will create a working copy of the Template that the user can save with incomplete data. Once the working copy has complete data for all facilities, the user can then copy the facility data back into the actual Template.

In order avoid any errors, please double check that the correct Template is being uploaded and marked final.

# 8.0 GLOSSARY AND ABBREVIATIONS

A GLOSSARY OF TERMS IS PRESENTED below along with definitions for some commonly used abbreviations.

## GLOSSARY

| | |
|---|---|
| **Annual Flow** | The **Annual Flow** is the volume of water pumped or treated by a facility in a year in Mega Litres (ML). The Annual Flow is reported in order to calculate energy intensity for flow volumes. |
| **Annual # of Hours Per Week** | **Average # Hours Per Week** is the number of hours per week that a building or facility (or a space within a building or facility being reported as a separate operation type) is occupied by at least 75% of the occupants, and is therefore considered occupied. |
| **District Cooling** | **District Cooling** is a system for cooling multiple buildings/facilities or operations from a central location. |
| **District Heating** | **District Heating** is a system for distributing heat generated in a centralized location to multiple buildings/facilities or operations. |
| **Emission Factor** | The **Emission Factor** is the ratio of greenhouse gas (GHG) emissions produced to generate a unit of energy. |
| **Energy Conservation and Demand Management Plan** | **Energy Conservation and Demand Management Plan** refers to the 5 year energy conservation plans that public agencies are required to develop and post by July 1, 2014. |
| **Energy Intensity (ekWh/sqft)** | **Energy Intensity (ekWh/sqft)** reports the equivalent kilowatt hours per square foot of each operation type reported. The Energy Intensity is calculated based on all of the energy purchased and consumed for each operation type reported relative to floor area. |
| **Energy Intensity (ekWh/ML)** | **Energy Intensity (ekWh/ML)** reports the equivalent kilowatt hours per Megalitre of each operation type reported. The Energy Intensity is calculated based on all of the energy purchased and consumed for each operation type reported relative to annual flow of water processed or pumped by a facility. |
| **Operation Type** | **Operation type** is the type of operation that takes place in the buildings. Public Agencies are required to report their energy use by operation type. The operation types are defined by Regulation 397/11 and are distinct for each type of public agency (colleges, hospitals, universities and municipalities). A full list of the operation types are provided in Section 3.4 of this guide. |

| | |
|---|---|
| **Public Agency** | **Public Agency** in this guide refers to Ontario colleges, hospitals, universities and municipalities. |
| **Renewable Energy** | A **renewable energy** source means an energy source that is renewed by natural processes and includes wind, water, biomass, biogas, biofuel, solar energy, geothermal energy, or tidal forces. |

## ABBREVIATIONS

| | |
|---|---|
| **BPS** | Broader Public Sector |
| **CDM Plan** | Conservation and Demand Management Plan *(see glossary for a definition)* |
| **$CO_2$** | Carbon Dioxide |
| **ekWh** | Equivalent kilowatt hours |
| **GHG** | Greenhouse Gases |
| **GJ** | GigaJoule |
| **kg** | kilogram |
| **kL** | kilolitre |
| **kW** | kilowatt |
| **kWh** | kilowatt hour |
| **L** | Litres |
| **ML** | Mega Litre |
| **MW** | Megawatt |
| **PDF** | Portable Document Format |
| **PV** | Photovoltaics *(method of converting sunlight into electricity)* |
| **t** | Metric tonne |
| **TWh** | Terawatt hour |

# 9.0 APPENDIX A > SAMPLE ELECTRICITY AND NATURAL GAS BILLS

SAMPLE ELECTRICITY AND NATURAL GAS BILLS are included as a reference for locating the information required for filling out the Template.

For electricity bills, public agencies need to locate the kWh consumption or metered usage and the billing or service period.

For natural gas bills, public agencies need to locate the adjusted gas used and the billing period.

HydroOttawa
www.hydroottawa.com
Questions/Questions : 613-738-6400
Power Outage/Panne d'électricité : 613-738-0188

**Service For • Service pour**
123 ANYWHERE ST

**Account Number • Numéro de compte**
12345678901234567890

**Meter Number • Numéro de compteur**
1234567890

## Account Summary • Sommaire de compte

| | | |
|---|---|---|
| Previous Balance/Solde précédent | | $594,541.21 |
| Payment/Paiement | 2012-02-04 | $594,541.21 CR |
| HST No. 863391363/No. TVH 863391363 | | $31,512.49 |
| Global Adjustment/Rajustement global | | $242,403.70 |
| **Electricity Charge/Frais d'électricité** | | |
| **From/Du 2012-01-01 To/Au 2012-02-01 (31 Days/Jours)** | | |
| 5,747,147.57 kWh @ $0.0329198/kWh | | $189,194.95 |
| HST No. 863391363/No. TVH 863391363 | | $24,595.35 |
| **From/Du 2012-01-01 To/Au 2012-02-01 (31 Days/Jours)** | | |
| Delivery/Frais de livraison | | $89,160.28 |
| Regulatory Charges/Frais réglementés | | $39,497.52 |
| Debt Retirement Charge/Règlement de la dette | | $39,215.76 |
| Transformer Ownership Credit/Crédit pour possession du transformateur | | $4,381.58 CR |
| HST No. 863391363/No. TVH 863391363 | | $21,253.96 |

| | 00:00-24:00 | 07:00-19:00 |
|---|---|---|
| Billing Demand/Demande de facturation | 9736.84 | 9736.84 |
| kW Demand/Demande kW | 9736.84 | 9736.84 |
| kVa Demand/Demande kVa | 10241.39 | 10241.39 |
| Power Factor/Facteur Puissance | 95.07 % | 95.07 % |

| | |
|---|---|
| Meter Reading (current) / Relevé de compteur (actuel) | --- |
| Meter Reading (previous) / Relevé de compteur (précédent) | --- |
| kWh Consumption / Consommation en kWh | 5707764.00 |
| Adjusted Consumption / Consommation rajustée | 5747147.57 |

**Account History / Relevé de compte**

| Reading Date / Date du relevé | kWh / kWh | # Days / # jours | kWh/Days / kWh/jour |
|---|---|---|---|
| 2012-02-01 | 5747147 | 31 | 185391.85 |
| 2012-01-01 | 5492396 | 31 | 177174.08 |
| 2011-12-01 | 5619821 | 30 | 187327.38 |
| 2011-11-01 | 5435530 | 31 | 175339.68 |
| 2011-10-01 | 5727899 | 30 | 190929.98 |
| 2011-09-01 | 6368010 | 31 | 205419.68 |
| 2011-08-01 | 6797711 | 31 | 219281.02 |

| Bill Date / Date de la facture | Due Date / Date d'échéance | Amount Due / Montant dû |
|---|---|---|
| 2012-02-14 | 2012-03-07 | $672,452.43 |

## For your information • Autres renseignements

Additional information on reverse. Please retain this portion. • Information supplémentaire au verso. Prière de conserver cette partie. E & OE

HydroOttawa
c/o PO Box 4483 / C.P. 4483
a/s de Station A
Toronto, ON
M5W 5Z1

Tel. / Tél. : 613-738-6400
Fax. / Téléc. : 613-738-6403
www.hydroottawa.com

**Service For • Service pour**
123 ANYWHERE ST

**Account Number • Numéro de compte**
12345678901234567890

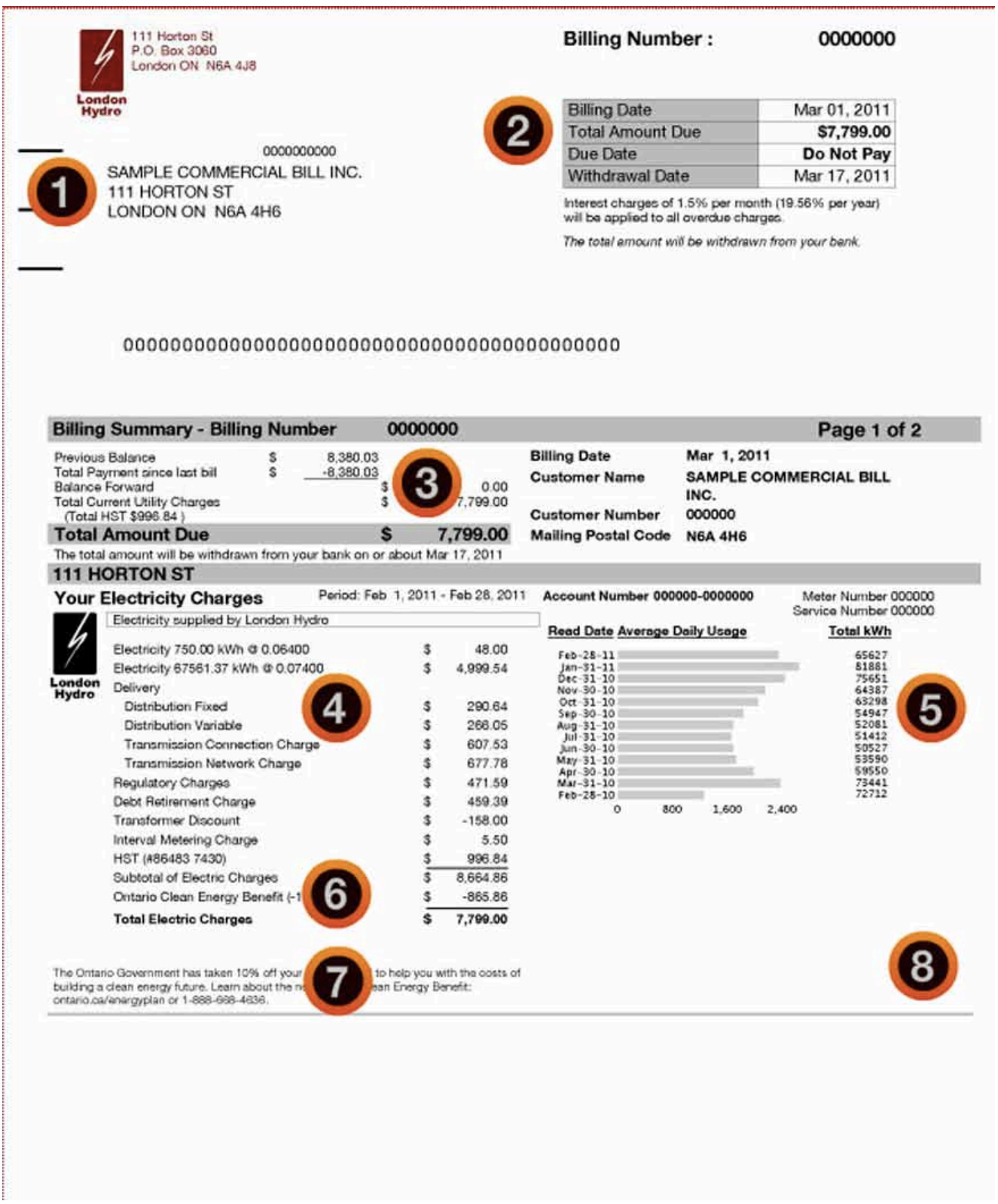
| | |
|---|---|
| Due Date / Date d'échéance | 2012-03-07 |
| Amount Due / Montant dû | $672,452.43 |

**Outstanding balances will be charged 1.5% interest per month.**
**Un taux d' intérêt de 1,5 % s'applique aux soldes impayés.**

BUSINESS NAME
CUSTOMER NAME
123 ANYWHERE ST
OTTAWA ON K1K 1K1

00000000009999999999000000000000000000200912051

⑆04338⑈900⑆ 96



111 Horton St
P.O. Box 3060
London ON N6A 4J8

London Hydro

**Billing Number : 0000000**

| | |
|---|---|
| Billing Date | Mar 01, 2011 |
| Total Amount Due | **$7,799.00** |
| Due Date | **Do Not Pay** |
| Withdrawal Date | Mar 17, 2011 |

Interest charges of 1.5% per month (19.56% per year) will be applied to all overdue charges.

*The total amount will be withdrawn from your bank.*

0000000000
SAMPLE COMMERCIAL BILL INC.
111 HORTON ST
LONDON ON N6A 4H6

00000000000000000000000000000000000000000000

**Billing Summary - Billing Number 0000000** **Page 1 of 2**

| | | |
|---|---|---|
| Previous Balance | $ | 8,380.03 |
| Total Payment since last bil | $ | -8,380.03 |
| Balance Forward | $ | 0.00 |
| Total Current Utility Charges | $ | 7,799.00 |
| (Total HST $996.84 ) | | |
| **Total Amount Due** | **$** | **7,799.00** |

The total amount will be withdrawn from your bank on or about Mar 17, 2011

| | |
|---|---|
| **Billing Date** | **Mar 1, 2011** |
| **Customer Name** | **SAMPLE COMMERCIAL BILL INC.** |
| **Customer Number** | **000000** |
| **Mailing Postal Code** | **N6A 4H6** |

**111 HORTON ST**

**Your Electricity Charges** Period: Feb 1, 2011 - Feb 28, 2011

**Account Number 000000-0000000** Meter Number 000000 Service Number 000000

Electricity supplied by London Hydro

| | | |
|---|---|---|
| Electricity 750.00 kWh @ 0.06400 | $ | 48.00 |
| Electricity 67561.37 kWh @ 0.07400 | $ | 4,999.54 |
| Delivery | | |
| Distribution Fixed | $ | 290.64 |
| Distribution Variable | $ | 268.05 |
| Transmission Connection Charge | $ | 607.53 |
| Transmission Network Charge | $ | 677.78 |
| Regulatory Charges | $ | 471.59 |
| Debt Retirement Charge | $ | 459.39 |
| Transformer Discount | $ | -158.00 |
| Interval Metering Charge | $ | 5.50 |
| HST (#86483 7430) | $ | 996.84 |
| Subtotal of Electric Charges | $ | 8,664.86 |
| Ontario Clean Energy Benefit (-1 | $ | -865.86 |
| **Total Electric Charges** | **$** | **7,799.00** |

| Read Date | Average Daily Usage | Total kWh |
|---|---|---|
| Feb-28-11 | | 65627 |
| Jan-31-11 | | 81881 |
| Dec-31-10 | | 75651 |
| Nov-30-10 | | 64387 |
| Oct-31-10 | | 63298 |
| Sep-30-10 | | 54947 |
| Aug-31-10 | | 52081 |
| Jul-31-10 | | 51412 |
| Jun-30-10 | | 50527 |
| May-31-10 | | 53590 |
| Apr-30-10 | | 59550 |
| Mar-31-10 | | 73441 |
| Feb-28-10 | | 72712 |

0 800 1,600 2,400

The Ontario Government has taken 10% off your to help you with the costs of building a clean energy future. Learn about the n ean Energy Benefit: ontario.ca/energyplan or 1-888-668-4636.

Halton Hills HYDRO

43 Alice St. Acton, ON L7J 2A9

Please write your Hydro account number on your cheque and make payable to Halton Hills Hydro.

OFFICE HOURS: 8:30 AM - 4:30 PM MONDAY - FRIDAY

WEBSITE: www.haltonhillshydro.com

*Please return this portion with your payment*

ACCOUNT NUMBER 000074719-000045668

AMOUNT PAID

BALANCE FORWARD

BILL DATE November 21, 2008

TOTAL CURRENT CHARGES $544.44

DUE DATE December 08, 2008

TOTAL AMOUNT DUE $544.44

00001 A2 Q

COMMERCIAL HHH
43 ALICE ST COMM
ACTON ON L7J 2A9

00007471900004566800000054444

:08138=900:

96

▲ Detach remittance along perforation

*Please retain this portion*

ACCOUNT NUMBER 000074719-000045668

BILLING ENQUIRIES: 519-853-3701
GENERAL ENQUIRIES: 519-853-3700
OUTLYING AREAS: 905-453-2222
FAX: 519-853-2621
AFTER HOURS EMERGENCY: 905-873-3515
WEBSITE: www.haltonhillshydro.com

AMOUNT PAID

BALANCE FORWARD

BILL DATE November 21, 2008

TOTAL CURRENT CHARGES $544.44

DUE DATE December 08, 2008

TOTAL AMOUNT DUE $544.44

COMMERCIAL HHH
43 ALICE ST COMM

**Customer Message Centre**

Fall conditions provide a great opportunity to establish water efficient and drought resistant landscapes for next spring. For tips to make your property waterwise visit www.halton.ca/waterconservation.

## YOUR ACCOUNT SUMMARY

| DESCRIPTION | CONSUMPTION | AMOUNT |
|---|---|---|
| Your Electricity Charges | | |
| Electricity Charge @ .056 | 788.00 | 44.13 |
| Electricity Charge @ .065 | 4,461.50 | 290.00 |
| Delivery Charge | | 116.58 |
| Regulatory Charge | | 32.80 |
| Debt Retirement Charge | 5,000.00 | 35.00 |
| **Total Electricity Charges** | | **$518.51** |
| **GST # 86742 9623 RT** | | **$25.93** |

ELECTRIC CONSUMPTION HISTORY

Halton WATER CONSUMPTION HISTORY

www.halton.ca

| SERVICE PERIOD | | DAYS | AVERAGE COST PER DAY |
|---|---|---|---|
| 10/31/2008 | 11/30/2008 | 30 | $17.28 |
| | | | AVERAGE USAGE PER DAY |
| | | | 166.66 kWh |

## YOUR METERED CONSUMPTION SUMMARY

| SR | UNITS | METER NUMBER | MULT | CURRENT | PREVIOUS | USAGE | ASSESSMENT FACTOR* | ADJUSTED CONSUMPTION* | PF |
|---|---|---|---|---|---|---|---|---|---|
| HY | KWH | HHRF24106 | 1 | 5000 | | 5000 | 1.0499 | 5249 | |

hydro one

Service address: CUSTOMER NAME
CUSTOMER NAME 2
ADDRESS FIELD, ADDRESS NOTES

Your account number: 12345-67890



## How we calculated your charges

| | | |
|---|---|---|
| **Balance forward** | 11 Amount of your last bill | $168.13 |
| | Amount we received on November 29, 2012 - thank you | $168.13CR |
| | **Balance forward** | **$ 0.00** |
| **Your electricity charges** | Your service type is General Service - Energy 12 | |
| | 13 **Electricity used this billing period** | |
| | Meter J1234567 for billing period November 1, 2012 to December 3, 2012 | |
| | 14 Metered usage in kilowatt-hours (2,000 x 1) = 2,000 kWh | |
| | Adjusted usage in kilowatt-hours (2,000 x 1.092*) = 2,184 kWh | |
| | 15 Electricity: On-Peak: 524.16 kWh @ 11.8000 ¢ | $61.85 |
| | Mid-Peak: 436.80 kWh @ 9.9000 ¢ | $43.24 |
| | Off-Peak: 1,223.04 kWh @ 6.3000 ¢ | $77.05 |
| | 16 Delivery | $134.77 |
| | Regulatory Charges 17 | $14.01 |
| | 18 Debt Retirement Charge | $14.00 |
| | HST (87086-5821-RT0001) | $44.84 |
| | Total of your electricity charges | $389.76 |
| | 19 Ontario Clean Energy Benefit: 10% off applicable electricity charges and taxes*** | $38.98CR |
| | New total of your electricity charges | $350.79 |
| **Adjustments** | 20 Account set-up charge | $30.00 |
| | HST (87086-5821-RT0001) | $3.90 |
| | **Total adjustments** | **$33.90** |

**Time-of-Use Periods for Summer and Winter**

21

| Time Period | Summer (May 1st - Oct 31st) | Winter (Nov 1st - Apr 30th) |
|---|---|---|
| On-Peak | Weekdays: 11 a.m. - 5 p.m. | Weekdays: 7 a.m. - 11 a.m. & 5 p.m. - 7 p.m. |
| Mid-Peak | Weekdays: 7 a.m. - 11 a.m. & 5 p.m. - 7 p.m. | Weekdays: 11 a.m. - 5 p.m. |
| Off-Peak | Weekdays: 7 p.m. - 7 a.m. & Weekends and Holidays | Weekdays: 7 p.m. - 7 a.m. & Weekends and Holidays |

22 **Electricity**: This is the cost of the electricity supplied to you during this billing period and is the part of the bill that is subject to competition. The electricity consumed is multiplied by the adjustment factor*. Hydro One collects this money and pays this amount directly to our suppliers.

*When electricity is delivered over a power line, it is normal for a small amount of power to be consumed or lost as heat. Equipment, such as wires and transformers, consumes power before it gets to your home or business. The adjustment factor accounts for these losses.

**Delivery**: These are the costs of delivering electricity from generating stations across the Province to Hydro One than to your home or business. this includes the costs to build and maintain the transmission and distribution lines, towers and poles and operate provincial and local electricity systems. A portion of these charges are fixed and do not change from month to month. The rest are variable and increase or decrease depending on the amount of electricity that you use.

**Regulatory Charges**: Regulatory charges are the costs of administering the wholesale electricity system and maintaining the reliability of the provincial grid and include the costs associated with funding Ministry of Energy and Infrastructure conservation and renewable energy programs.

**Debt Retirement Charge**: The debt retirement charge pays down the debt of the former Ontario Hydro.

NOTE: For a detailed explanation of electricity terms, please visit www.HydroOne.com or www.ontarioenergyboard.ca.

General Service TOU
11/01/2012

BE130301-2113.DAT-93098-000031498



# Charges For Gas

**Invoice Date** March 4, 2013

**Billing Period** Jan 30, 2013 - Feb 28, 2013

**Account Number**

Service At:

ENBRIDGE

## Details about your new gas charges

| | | |
|---|---|---|
| Customer Charge | | 20.00 |
| Delivery to you | | 22.16 |
| Transportation to Enbridge | | 16.33 |
| Gas Supply Charge | | 37.92 |
| Cost Adjustment | | 5.98CR |
| **Total New Gas Charges** | **#** | **90.43** |

# Items subject to HST (Harmonized Sales Tax)

| | |
|---|---|
| As of JAN 01/13 your gas supply rate is: | 12.8548¢/m3 |
| Gas cost adjustment (JAN 01-DEC 31,13): | -2.1245¢/m3 |
| Total effective gas supply rate: | 10.7303¢/m3 |

## Gas Charge Information

| | |
|---|---|
| **Gas Charges this billing** | 90.43 |
| **Gas Charges billed to date** | 367.76 |

**Customer Charge**

A fixed amount charged monthly per meter to recover a portion of the fixed costs that Enbridge incurs to keep our system available.

## Meter Reading Information

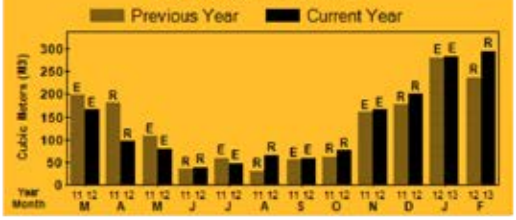
RATE 1 Residential — Meter Number

| | | |
|---|---|---|
| Current actual meter reading | 28 FEB 13 | 11717 |
| Less previous meter reading | 30 JAN 13 | 11423 |
| Billing Period Days | | 0030 |
| **Gas used this period (m3)** | | **294** |

PEF Value 1.00400 Adjusted m3 295

**Comparing Your Gas Consumption**

R = Actual E = Estimated




E.& O.E.

Teller's Stamp

### Payments

If you pay at the bank or by mail, to avoid the late payment charge, allow 7 days for your payment to reach our office.

Payments may be mailed to:
PO BOX 644
Scarborough ON M1K 5H1

### Please make cheques payable to : Enbridge

All payments made to Enbridge are accepted under the express condition that the Company may demand payment of account deficiencies irrespective of any condition attached to the payment by the customer.

# Your Union Gas bill

September 22, 2011 to October 22, 2011

SYSTEM CUSTOMER


Account number:
222-2222 333-3333

## New Union Gas charges

For questions about the charges below, call Union Gas at 1-888-774-3111.

Charges for the period September 22, 2011 to October 22, 2011

| | | | |
|---|---|---|---|
| Gas used | | | |
| Sep 22 to Sep 30, 2011 | 16.023 cubic metres @ | 14.9284¢ | 2.39 |
| Oct 1 to Oct 22, 2011 | 71.907 cubic metres @ | 13.7730¢ | 9.90 |
| Gas price adjustment | | | |
| Sep 22 to Sep 30, 2011 | 16.023 cubic metres @ | -1.1577¢ | -0.19 |
| Oct 1 to Oct 22, 2011 | 71.907 cubic metres @ | -1.0377¢ | -0.75 |
| Transportation to Union Gas | | | |
| Sep 22 to Sep 30, 2011 | 16.023 cubic metres @ | 5.5644¢ | 0.89 |
| Oct 1 to Oct 22, 2011 | 71.907 cubic metres @ | 4.8698¢ | 3.50 |
| Storage | 87.930 cubic metres @ | 0.9775¢ | 0.86 |
| Delivery | | | |
| Sep 22 to Sep 30, 2011 | 16.023 cubic metres @ | 3.8147¢ | 0.61 |
| Oct 1 to Oct 22, 2011 | 71.907 cubic metres @ | 3.7940¢ | 2.73 |
| Delivery price adjustment | 87.930 cubic metres @ | 0.0002¢ | 0.00 |
| Monthly charge | | | 20.00 |
| Total new charges this billing period | | | $39.94 |

### Gas you used this period

| | |
|---|---|
| Actual meter reading on Sep 22, 2011: | 55327.0 |
| Actual meter reading on Oct 22, 2011: | 55415.0 |
| Difference between the readings in M3: | 88.000 |
| Factor(s): | |
| Barometric pressure: | 0.99920 |
| Gas you used in M3: | 87.930 |

**Monthly charge**
The monthly charge is a set amount charged to each customer regardless of the amount of gas used. It helps cover the cost of maintaining a safe gas distribution system 24 hours a day, every day.

**Price adjustments**
Price adjustments, approved by the Ontario Energy board, are required to bring forecast costs into line with actual costs. In the past, the adjustment was included in the rates. Each adjustment now appears as a separate line on the bill, but it is not an extra charge.

**Call before you dig**
Remember to call before you dig. Contact Ontario One Call at www.On1Call.com or 1-800-400-2255 for free underground utility locates.

**Meter reading**
We plan to read the gas meter at your address every month. If we are unable to do so, we may leave a card asking you to provide us the meter read. If you cannot provide a meter read we will estimate your read. You can submit your read to us at uniongas.com/meterread or by telephone.

**How to read the meter**
To read your meter, record the numbers from left to right just as you would a car odometer. You can submit your meter read to us at uniongas.com/meterread or by telephone.

E. & O.E.

## Payment options

Total payment is now due. Non-payment may result in the disconnection of your gas service.

Here are your payment options:
- direct withdrawal from your chequing account
- online or telephone banking
- cheque, by mail (tear off and include this bottom portion of your bill)
- most financial institutions in Canada (please take your entire bill with you).

Visit us at: uniongas.com

Teller's receipt stamp

# 10.0 APPENDIX B > SAMPLE FILLED OUT TEMPLATE

A SAMPLE FILLED OUT TEMPLATE is provided below for demonstration purposes only. The template is broken into seven numbered sections for readability. These sections appear side-by-side in the template.


| Press TAB to move to input areas. Press UP or DOW | |
|---|---|
| **Confirm consecutive 12-month period (month-year to month-year)** | January-2011 to December-2011 |
| **Type of Public Agency (Sector):** | **Municipal** |
| **Agency Sub-sector** | **Municipality** |
| **Organization Name** | A Municipality |

| Operation Name | Operation Type |
|---|---|
| *Gatsby Administration Centre* | *Administrative offices and related facilities, including municipal council chambers* |
| Police station | Police stations and associated offices and facilities |
| Community Hall | Community centres |
| Downtown Arena | Indoor ice rinks |
| Fire Hall | Fire stations and associated offices and facilities |
| Public Works Facility | Storage facilities where equipment or vehicles are maintained, repaired or stored |
| Town Hall Library | Public libraries |
| Town Hall | Administrative offices and related facilities, including municipal council chambers |
| Town Hall Gallery | Art galleries |
| Water Treatment Plant | Facilities related to the treatment of water |
| Wastewater Treatment Plant | Facilities related to the treatment of sewage |

**Please fill in the mandatory fields indicated in red, in addition to submitting data on your energy usage.**

| Address | City | Postal Code | Total Floor Area of the Indoor Space in which Operation is Conducted |
|---|---|---|---|
| *512 Smithson Avenue* | *Toronto* | *M7A 2J1* | *361,280.00 Square feet* |
| 365 West Street | A Town | N3Y 1T7 | 250,000.00 Square feet |
| 18 East Street | A Town | P0J 1C0 | 10,100.00 Square feet |
| 1 Queen Street | A Town | P0J 1C0 | 15,000.00 Square feet |
| 50 King Street | A Town | P0J 1C0 | 2,500.00 Square feet |
| 9 North Street | A Town | P0J 1C0 | 2,500.00 Square feet |
| 9091 County Road 1 | A Town | L0G1L0 | 2966.54 Square meters |
| 9091 County Road 1 | A Town | L9Y 4N9 | 4661 Square meters |
| 9091 County Road 1 | A Town | L0L 2M0 | 6274.85 Square meters |
| 191 Golden Meadow Road | A Town | K4N 9N7 | 5213 Square meters |
| 124 Bayview Drive | A Town | K4N 3P4 | 3601.45 Square meters |

| Average # Hours Per Week | Annual Flow (Mega Litres) | Electricity | Natural Gas | Fuel Oil 1 & 2 |
|---|---|---|---|---|
| *40* | | *5,103,348.00000 kWh* | *410,325.00000 Cubic meter* | |
| 168 | | 4,632,927.00000 kWh | 989,333.00000 Cubic meter | |
| 40 | | 81,049.00000 kWh | 20,831.00000 Cubic meter | |
| 40 | | 206,159.00000 kWh | 20,955.00000 Cubic meter | |
| 168 | | 17,461.00000 kWh | 6,952.00000 Cubic meter | |
| 50 | | 16,927.00000 kWh | 10,899.00000 Cubic meter | |
| 40 | | 162,489.78125 kWh | | |
| 40 | | 260,929.59375 kWh | 289,989.71875 Cubic meter | |
| 40 | | 593,649.93750 kWh | 615,553.75000 Cubic meter | |
| 168 | 8737.40700 | 485,202.59375 kWh | 367,395.87500 Cubic meter | |
| 168 | 8450.48200 | 132,015.23438 kWh | 492,348.75000 Cubic meter | |

3

| Energy Type and Amount Purchased and Consumed in Natural Units | | | |
|---|---|---|---|
| Fuel Oil 4 & 6 | Propane | Coal | Wood |
| | | | |

4

| District Heating | Renewable? | If Yes, enter Emission Factor |
|---|---|---|
| 25.64000 Giga Joule - steam or hot water | No | |

5

| District Cooling | Renewable? | If Yes, enter Emission Factor | GHG Emissions (Kg) |
|---|---|---|---|
| 23.40500 Giga Joule - chilled water | No | | |
| | | | 2,461,352.79958 |
| | | | 49,680.08766 |
| | | | 66,178.64344 |
| | | | 15,333.39925 |
| | | | 22,680.66320 |
| | | | 21,125.29646 |
| | | | 578,834.43730 |
| | | | 1,233,849.01339 |
| | | | 753,443.75605 |
| | | | 942,321.06628 |

6

| al (These columns will calculate when file is Saved) | | |
|---|---|---|
| Energy Intensity (ekWh/sqft) | Energy Intensity (ekWh/Mega Litres) | Comments |
| *Click above cell to toggle units* | *Click above cell to toggle units* | |
| 60.58940 | | |
| 29.94421 | | |
| 28.59096 | | |
| 36.53816 | | |
| 53.10371 | | |
| 5.08852 | | |
| 66.62810 | | |
| 105.64393 | | |
| 78.23007 | 502.41551 | |