ENERGY STAR® Portfolio Manager®

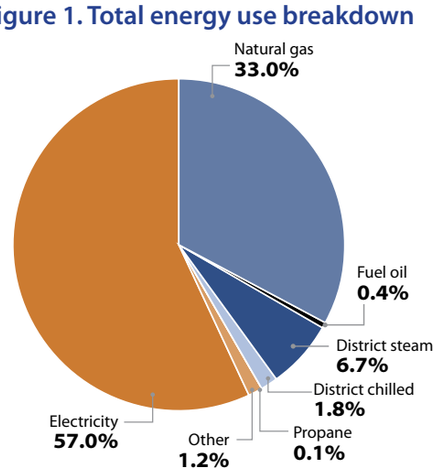
Energy Benchmarking Data Snapshots for All Building Types

QUICK FACTS

- **19,000** buildings in Canada
- **216.5 million** m^2 floor area
- **1** GJ/m^2 median **site** energy use intensity (EUI)
- **1.6** GJ/m^2 median **source** EUI

ENERGY STAR® Portfolio Manager® is a tool used to track the energy use of 19,000 buildings in Canada. Energy benchmarking can save on energy costs and reduce environmental impact. This document provides a snapshot of the Canadian data for all building types entered into Portfolio Manager as of December 2017.

Figure 1. Total energy use breakdown



Fuel mix breakdown for all building types in Portfolio Manager

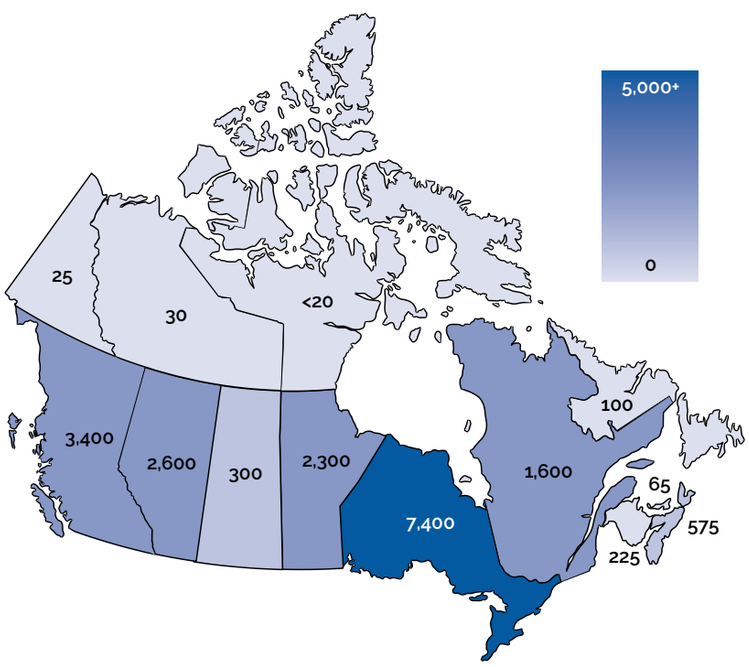


Table 1. Benchmarking by city

	City	Buildings	Floor area (m^2)
1	Toronto	4,300	81,500,000
2	Vancouver	2,300	26,500,000
3	Calgary	1,000	20,500,000
4	Montréal	1,000	21,000,000
5	Winnipeg	900	5,750,000
6	Edmonton	575	10,000,000
7	Ottawa	375	5,500,000
8	Victoria	325	1,500,000
9	Halifax	275	2,500,000
10	Quebec	125	1,000,000

Numbers may not sum to the total indicated because of rounding.

Table 2. Benchmarking by province and territory

Province or territory	Buildings	Floor area (m^2)
Alberta	2,600	35,500,000
British Columbia	3,400	30,500,000
Manitoba	2,300	7,750,000
New Brunswick	225	1,000,000
Newfoundland and Labrador	100	800,000
Northwest Territories	30	100,000
Nova Scotia	575	4,000,000
Nunavut	<20	–
Ontario	7,400	107,500,000
Prince Edward Island	65	300,000
Quebec	1,600	25,000,000
Saskatchewan	300	1,750,000
Yukon	25	50,000
Other/not identified	55	200,000
Total	**19,000**	**216,500,000**

For privacy reasons, data are not provided for provinces and territories with fewer than 20 registered buildings.
Numbers may not sum to the total indicated because of rounding.

Figure 2. Benchmarking by building type

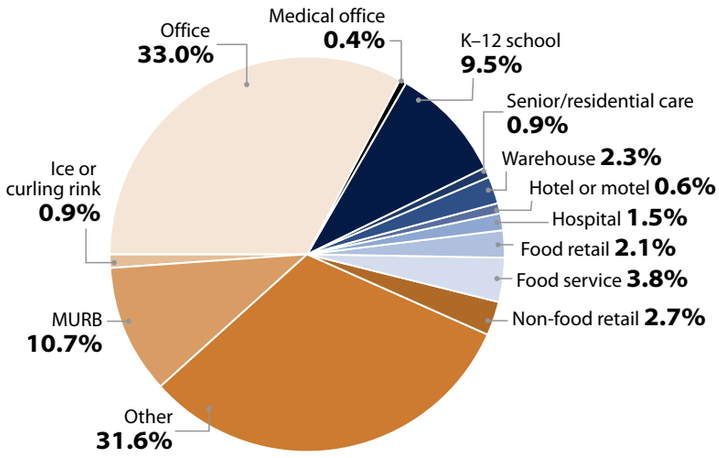


Figure 3. Top performers by building type relative to median

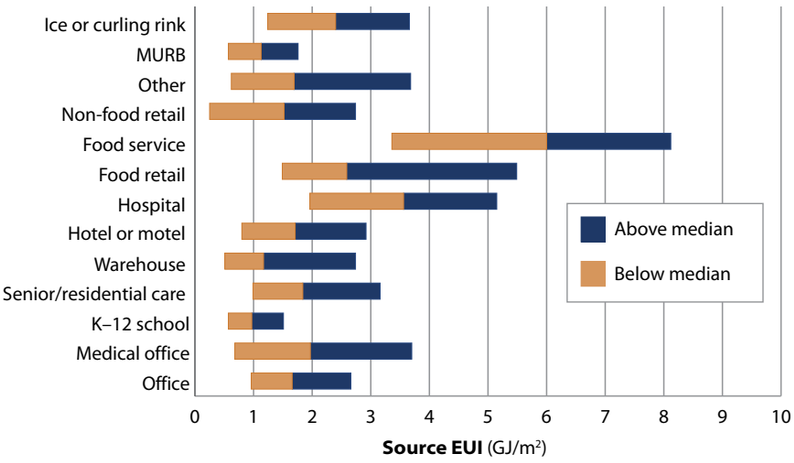


Figure 4. Source EUI distribution

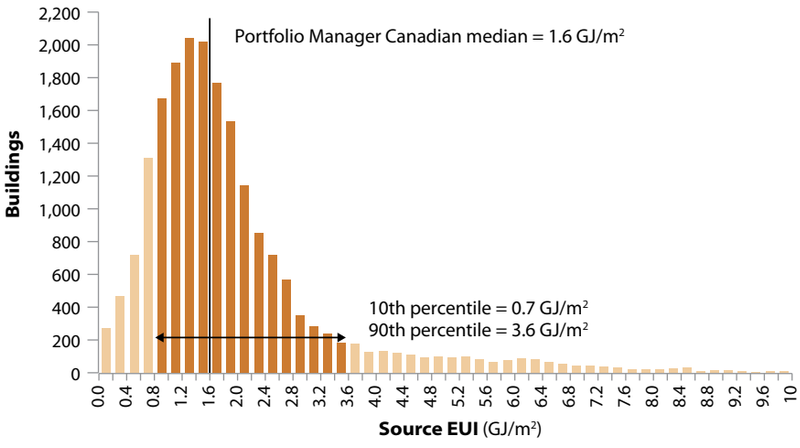
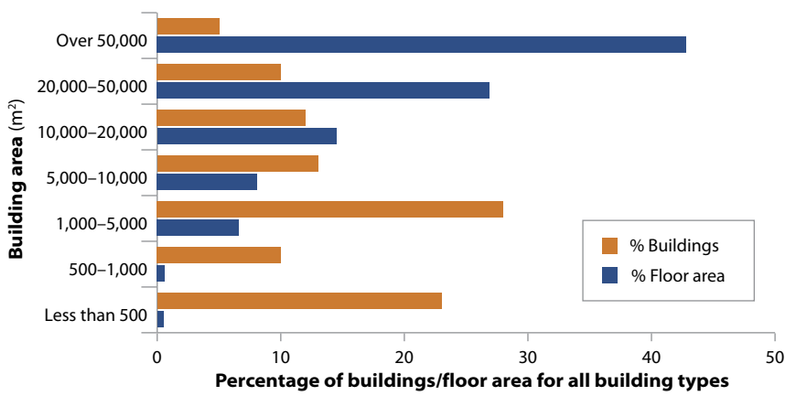


Figure 5. Distribution of floor area and buildings



Benchmarking by building type

Figure 2 shows the number of buildings for each type as a percentage of the total number of buildings benchmarked in Portfolio Manager. Office is the most common building type.

Top performers by building type

Figure 3 shows the median and the range (10th to 90th percentile) of source EUI for each building type.

Source EUI distribution

The median source EUI for all buildings in ENERGY STAR Portfolio Manager is 1.6 GJ/m^2.

Distribution of floor area and buildings

Figure 5 shows that larger buildings represent a relatively small portion of the number of buildings but account for the majority of the floor area benchmarked in Portfolio Manager. The median gross floor area is 3,075 m^2.

METRICS AND ACRONYMS

MURB

MURB stands for multi-unit residential building. This is one of the building types that can be benchmarked in Portfolio Manager.

ENERGY USE INTENSITY (EUI)

EUI is the energy use per square foot at a property (energy divided by square foot). EUI enables you to compare different size buildings.

SITE ENERGY VERSUS SOURCE ENERGY

There are two ways of measuring energy: at the site and at the source.

SITE ENERGY is the simplest way to measure energy because it accounts for only the energy your property uses, as measured by your energy meters. The usage that appears on your utility bills is a site energy measurement.

SOURCE ENERGY measures not only the energy used by your property, but also accounts for energy losses incurred during the production, transmission and delivery of energy to your property. Source energy is a more accurate measurement of the energy actually required to run your building.

ENERGY STAR Portfolio Manager uses **source energy**. This is the most equitable unit of evaluation, which enables a complete assessment of building-level energy efficiency.

For more information, see the **ENERGY STAR Portfolio Manager *Technical Reference: Source Energy.***

The data is self-reported and has been filtered to exclude outliers, buildings with less than a full year of consumption data and test cases. Buildings registered in Portfolio Manager do not represent a randomly selected sample and are not the basis for the ENERGY STAR score.

For more information on ENERGY STAR Portfolio Manager, contact Natural Resources Canada at **nrcan.buildings-batiments.rncan@canada.ca**.

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