



# Energy Benchmarking Data Snapshot for Supermarkets and Food Stores

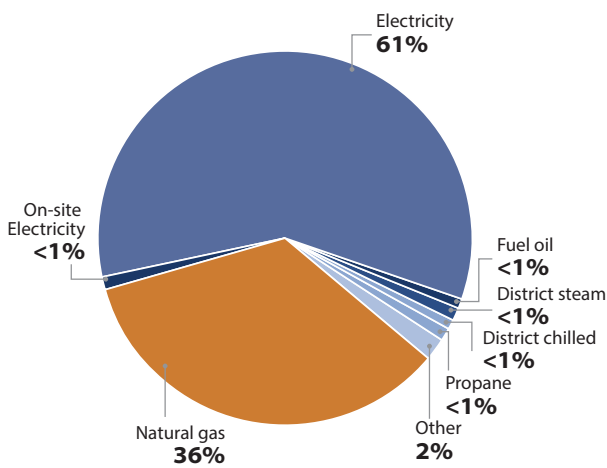


## QUICK FACTS

- **425** food retail buildings
- **1.75 million** m<sup>2</sup> floor area
- **2.0 GJ/m<sup>2</sup>** median **site** energy use intensity (EUI)
- **3.3 GJ/m<sup>2</sup>** median **source** energy use intensity (EUI)

**ENERGY STAR® Portfolio Manager®** is a tool used to track the energy use of 24,000 buildings in Canada. Energy benchmarking can help identify opportunities to save on energy costs and reduce environmental impact. This document provides a snapshot of the Canadian data for food retail buildings entered into Portfolio Manager as of December 2019.

Figure 1. Total energy use breakdown



Fuel mix breakdown for food retail in Portfolio Manager

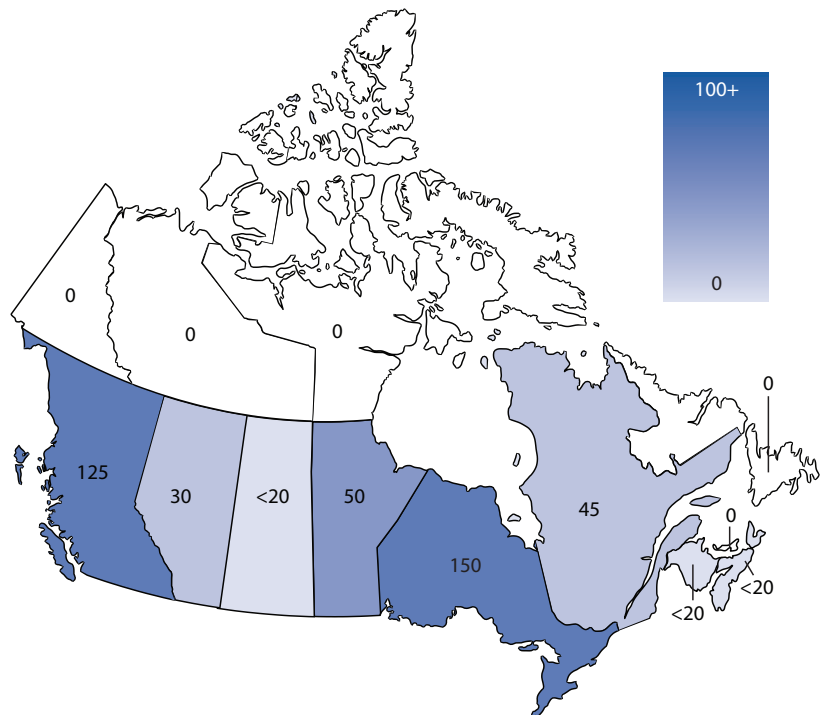


Table 1. Benchmarking by province and territory

Province or territory	Buildings	Floor area (m <sup>2</sup> )
Alberta	30	100,000
British Columbia	125	600,000
Manitoba	50	<100,000
New Brunswick	<20	<100,000
Newfoundland and Labrador	0	0
Northwest Territories	0	0
Nova Scotia	<20	<100,000
Nunavut	0	0
Ontario	150	950,000
Prince Edward Island	0	0
Quebec	45	<100,000
Saskatchewan	<20	<100,000
Yukon	0	0
<b>Total</b>	<b>425</b>	<b>1,750,000</b>

For privacy reasons, data are not provided for provinces and territories with fewer than 20 registered building and/or 100,000 m<sup>2</sup> of gross floor areas. Numbers may not sum to the total indicated because of rounding. Variations from previous snapshots are possible because of changes in user entry, improved filtering, and data cleaning.



Figure 2. Source EUI distribution

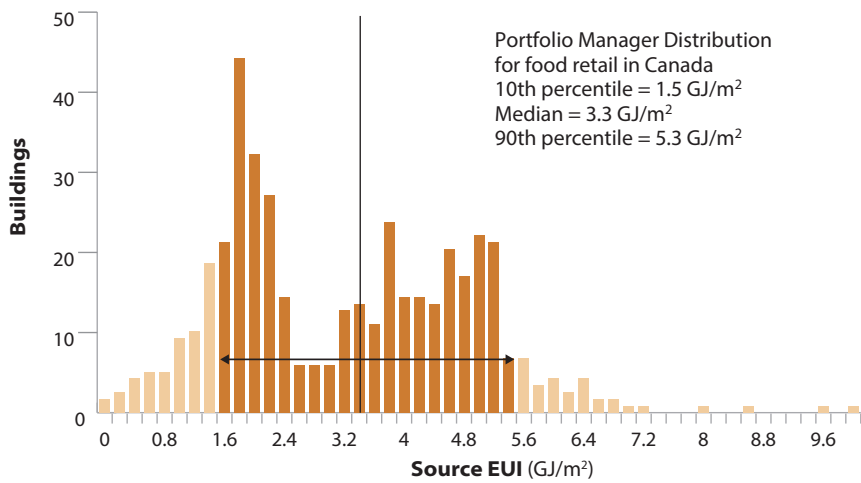


Table 2. Characteristics of food retail – range of values

Building characteristics	10th percentile	Median	90th percentile
Gross floor area (m <sup>2</sup> )	785	2,545	11,510
Heating degree days	2,800	4,330	5,705
Cooling degree days	35	150	355
Workers on main shift per 100 m <sup>2</sup>	0.9	1.1	1.1
Density of Cold Cases (m per 100 m <sup>2</sup> )	0.8	0.9	2.0

Figure 3. Distribution of floor area and buildings

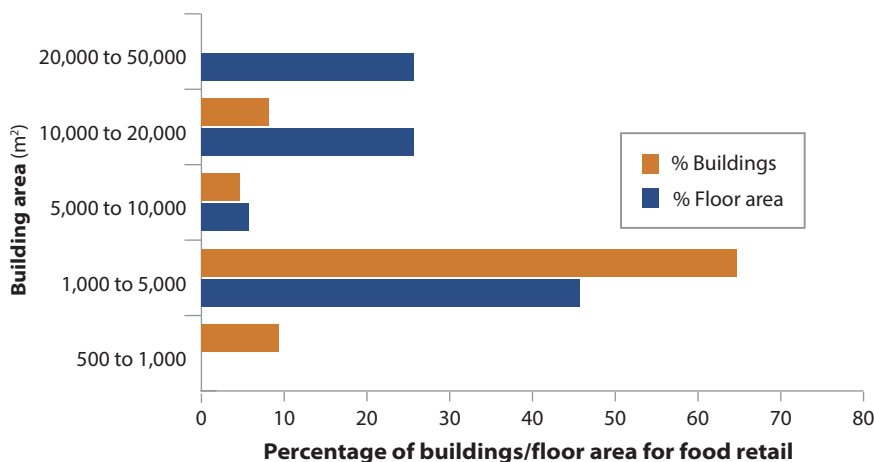
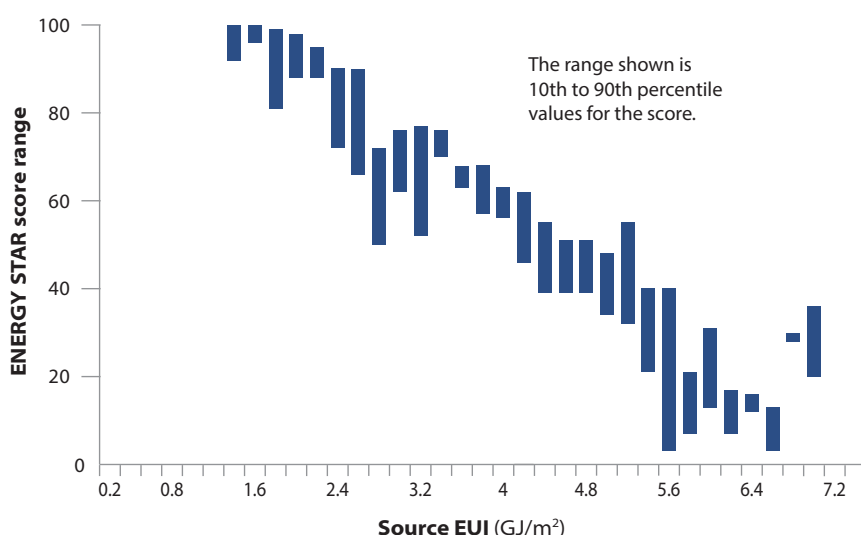


Figure 4. ENERGY STAR score range – food retail



## Source EUI distribution

The median source EUI for food retail buildings in ENERGY STAR Portfolio Manager is 3.3 GJ/m<sup>2</sup>.

## Characteristics

The buildings in Table 2 represent almost 1% of the floor area and 2% of buildings registered in Portfolio Manager in Canada.

## Distribution of floor area and buildings

Distribution of floor area and buildings Figure 3 shows that the most common building size for food retail buildings benchmarked in Portfolio Manager is 1,000 to 5,000 m<sup>2</sup>. The average gross floor area is 4,300 m<sup>2</sup>, and the median is 2,545 m<sup>2</sup>.

## ENERGY STAR score ranges

Figure 4 shows the range (10th to 90th percentile) of ENERGY STAR scores given per source EUI range.

## METRICS AND ACRONYMS

### ENERGY USE INTENSITY (EUI)

EUI is the energy use per square metre at a property. 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** not only measures 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, cases that are used for testing purposes, and an additional filter was applied. Variations from previous snapshots are possible because of changes in user entry, improved filtering, and data cleaning. 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.nrcan@canada.ca](mailto:nrcan.buildings-batiments.nrcan@canada.ca).