

CRCOG 2018 Emissions Inventory

As part of a regional climate action plan (CAP), the Centre Regional Council of Governments (COG) conducted a GHG inventory for the operations and facilities under its direct control with 2018 data. The inventory estimates COG operations are responsible for 2,003 tons of GHG emissions, measured as CO₂ equivalents – a standard system for weighting different gasses relative to CO₂ for a single comparison value.

Greenhouse gas emissions are estimated by determining usage values from financial records and calculating their impact using standardized conversion factors. To present an accurate reporting of COG’s emissions, the inventory was conducted following the ICLEI Local Government Operations Protocol version 1.1 (May 2010).

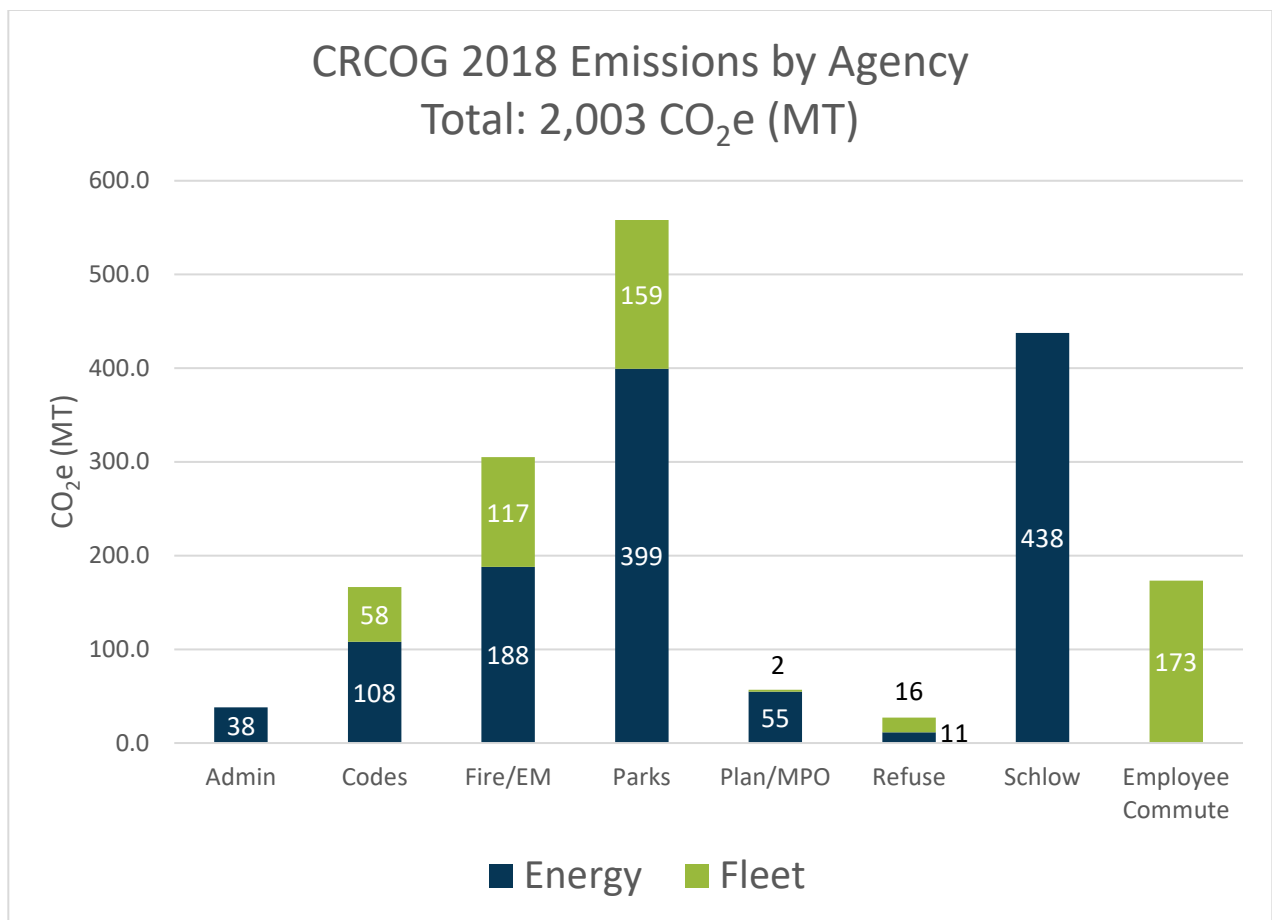


Figure 1 Emissions by COG Agency * waste emissions from landfilling not included in this graph

The largest single sector of emissions comes from electricity use across the buildings and parks, at 744 tons CO2e.

Sector	CO2e (MT)
Buildings & Facilities	1,237
Vehicle Fleet	336
Employee Commute	173
Solid Waste Facilities	240
TOTAL	2,003

Table 1 Emissions by Scope. Source ICLEI Clearpath

Using operational control to determine the scope, this inventory covers COG operations, vehicles, and facilities in the following departments: Administration, Refuse and Recycling, Parks and Recreation, Building Codes-existing construction, Building Codes-new construction, Regional and Metropolitan Planning, Fire/EM and Schlow Centre Region Library.

Scope 1: our direct emissions | Scope 2: indirect emissions from purchase of electricity | Scope 3: indirect emissions related to our operations but not under our direct control

Annual emission inventories may be conducted and recorded for the Centre Region Council of Governments (COG) to better track and control greenhouse gas (GHG) emissions as a part of the Climate Action and Adaption Plan (CAAP).

The starting year of 2018 is used for this inventory because records are available at the COG admin building. Receipts and transaction records from previous years are stored off-site, and would incur a fee to recover. If COG intends to conduct an annual GHG inventory, it should be completed before records are sent to long-term storage.

To facilitate future inventories, some additional vehicle and facilities record keeping practices could be considered, including air conditioner services (vehicles and buildings) and annual miles traveled (for fleet vehicles).

Benchmarking – How do our buildings stack up?

Regularly measuring utility use to understand building performance over time and identify opportunities for savings.

Compare your performance to:

- Past energy performance (baseline)
- Other buildings similar in size, use type, occupancy, etc.
- Future performance goals (target)



Table 2 COG Buildings 2018 energy and water consumption

Property Name	Energy Cost (\$)	Site EUI (kBtu/ft ²)	Water Use (All Water Sources) (kgal)	Total GHG Emissions (Metric Tons CO ₂ e)	Energy Star Rating
Millbrook Marsh Nature Center	\$ 6,668	5.5	14	7.2	51 *
CRPR Parks Maintenance Facility	\$ 5,878	58.7	n/a	25	
Patton Fire Company	\$ 7,880	59.6	49.7	50.5	
Centre Region COG Building	\$ 20,471	66.4	44	92.7	
State College Borough Fire Station	\$ 20,804	84.6	143.7	110.4	
Active Adult Center	\$ 10,589	101.1	33.9	51.9	
Schlow Library	\$ 63,157	127.1	271.7	343.6	

* Rating only available for certain building types - office building, schools, hotels, apartments, warehouses, hospitals. [Want to have 75% or >](#)

Site EUI = Energy use Intensity *A lower number is better*

The annual amount of all the energy your property consumes on-site / the property square foot.

Includes electric and natural gas