

## 2024-2029 Energy Conservation and Demand Management Plan

## **Background Information:**

Ontario Regulation 25/23: Broader Public Sector: Energy Reporting and Conservation and Demand Management Plans requires all municipalities to develop and submit an Energy Conservation and Demand Management (CDM) plan to the Ministry of Energy (MOE) every five years. The regulation also requires municipalities and other public sector groups (schools, hospitals, etc.), to annually report their energy use and greenhouse gas emissions for its facilities and buildings.

This updated CDM plan was developed in compliance with the regulation and covers the progress and information from 2019-2023 and forecasts the path forward from 2024-2029. The plan was approved by the County's Senior Leadership Team in June 2024. The leadership team stands behind the goals, objectives and reduction target and commits to applying staff, resources and budget required to achieve these goals. Peterborough County continues to be strongly committed to energy consumption and will continue to work towards reduction goals over the years.

This CDM plan builds on the municipality's previous conservation and management efforts, found here: [County-of-Peterborough-Energy-Management-Plan-2014.pdf \(ptbocounty.ca\)](https://www.ptbocounty.ca/energy-management-plan-2014.pdf). The updated CDM plan continues to build on energy conservation and demand management over the last five years.

This CDM plan outlines the methodologies and resources intended to improve the municipality's energy efficiency, effectiveness, and performance. The plan is comprised of Peterborough County's goals and objects for conserving energy, a summary of the annual energy consumption and greenhouse gas emissions for municipal operation, and a description of previous, current, and proposed actions to conserve energy and manage demand.

This plan is to document the legislated requirements relating to Peterborough County's energy conservation and demand management of its buildings/facilities.

The CDM plan will be available on the Corporation of the County of Peterborough website: [Energy Management - County of Peterborough \(ptbocounty.ca\)](https://www.ptbocounty.ca/energy-management-plan-2014.pdf) and by print at the County Administration Office, located at 470 Water St. Peterborough.

## Contents

Executive Summary.....	6
Goals and objectives for conserving energy.....	7
Partnership activities.....	8
Defining baseline energy consumption and savings to date.....	8
Energy use and benchmark performance of operations.....	20
Current and proposed energy conservation and demand management measures.....	23
Current Energy Conservation Initiatives.....	23
1. Facilities and Properties.....	23
2. Waste Management.....	24
3. Fleet and Roads Operations.....	24
4. Operational Strategies.....	25
Renewable energy current initiatives.....	25
Evaluation progress and reporting.....	29
Conclusion.....	29
Resources.....	30
Appendix A: 2014-2023 Energy Consumption Summaries.....	31

## List of Tables

Table 1: 2023 Total Energy Cost.....	10
Table 2: 2019 Total Energy Cost.....	10
Table 3: Corporate Facility Energy Consumption & Emissions Report (2023).....	21
Table 4: Future Goals - Peterborough County Energy Conservation and Demand Management Measures.....	26
Table 5: Current Solar PV (photovoltaic) systems.....	28
Table 6: Proposed Solar PV (photovoltaic) systems.....	28

## List of Figures

Figure 1: Five Year Energy Consumption (ekWh) 2019-2023.....	9
Figure 2: 2023 Total Energy Usage by Facility Type.....	11
Figure 3: Total Energy Use (ekWh) by Energy Type (2023) .....	12
Figure 4: 2023 Electricity (kWh) Consumption.....	13
Figure 5: 2023 Natural Gas (m3) Consumption.....	14
Figure 6: 2023 Propane (ekWh) Consumption.....	15
Figure 7: Total Annual County GHG Emissions.....	16
Figure 8: Total Annual Energy Intensity – Administration.....	17
Figure 9: Total Annual Energy Intensity – PCCP.....	18
Figure 10: Total Annual Energy Intensity - Public Works.....	19
Figure 11: Total Annual Energy Intensity – Museum.....	20
Figure 12: Energy Intensity with Benchmarks - All Facilities Except WW/W (2023).....	22

## **Executive Summary:**

Peterborough County (the County) is located on the traditional territory of the Mississauga Anishinaabeg and is home to Curve Lake and Hiawatha First Nations communities. Peterborough County is an upper tier municipality representing eight local townships and serving a population of approximately 64,000 residents, plus a large seasonal population.

Peterborough County is committed to energy conservation and demand management initiatives as a key component of its operations. The County understands the social, environmental and financial implications of energy management and strives to improve its efficiencies in a sustainable and responsible way.

The County has engaged in several energy conservation initiatives and partnerships to help reduce its carbon footprint such as LED lighting upgrades, HVAC upgrades, fleet initiatives, and building envelope upgrades. These details can be found on page 23 of this CDM plan.

Peterborough County has made great strides to address our changing climate with the creation of Sustainable Peterborough and our Climate Change Action Group. Through FCM funding, and working together as a full region, we were able to hire a Climate Change Coordinator for a year to support the creation and implementation of the Climate Change Action Plans for the City, County, townships and First Nations. The targets are set based on the baseline data from 2011 to 2031, providing 20 years to make change happen and to advance adaptation and mitigation strategies to measurably impact our GHG emissions. More details on this can be found at [Climate Change Action Plan | Sustainable Peterborough](#) or on the Peterborough County website.

This CDM plan includes energy related information relevant to Peterborough County. More specifically, it includes strategies, goals, and objectives for managing and reducing its energy consumption and demand management. The CDM plan includes measurable data indicating the municipality's top energy generating facilities and other energy generation summaries for all its facilities from 2019-2023. Also, it includes summaries of past, current and proposed measures to which the municipality has committed to conserve and reduce its energy consumption.

To track and reduce our energy use, the County utilizes the Energy Management Tool (EMT) and Energy Planning Tool (EPT) provided by Local Authority Services (LAS). The County tracks its electricity, natural gas, and propane consumption for each of our facilities through this tool. The County reports this to the Ministry through Energy Star Portfolio Manager annually, prior to July 1<sup>st</sup> of the reporting year. Peterborough County is committed to continuously reduce its energy consumption and strives to deliver improvements in a responsible and sustainable way.

### **Goals and objectives for conserving energy:**

Peterborough County is dedicated to continuously improving its energy efficiencies of all facilities, fleet, and energy consuming fields by reducing levels of GHG emissions, operating costs, and energy consumption. There are five (5) goals and (3) objectives identified by the municipality in the 2024-2029 Energy Conservation and Demand Management Plan. Integrating renewable energy sources in the County's facilities has not yet been feasible, but this remains a goal for future energy conservation measures.

### **Our organizational energy goals include:**

- Reduce energy consumption and reduce overall GHG emissions by 1.5% per year over the next 5 years.
- Explore renewable energy opportunities through County funded initiatives.
- Improve financial health by pursuing grants and incentives as well as the reinvestment of utilities saving from energy efficiency projects into new projects.
- Improve and enhance operational efficiency of existing buildings by utilizing best practice maintenance and carrying out upgrades to Electrical, Mechanical, and building envelopes, as well as sustainability efforts.
- Build future municipal facilities to ensure an elevated level of environmental performance and sustainability.

### **Our energy conservation and demand management objectives include:**

- Ensure staff are aware of the importance of conserving energy and reducing our GHG emissions, and increase staff awareness to motivate staff to use energy more efficiently.
- Complete energy audits on two of the top five energy consuming buildings in the County to find areas of improvement to help achieve our targeted GHG reductions.
- Operate County buildings and properties in a social, environmental, and financially responsible manner while providing a high level of service to the users.

### **Our targets towards achieving our goals and objectives include:**

- Reduce overall GHG emissions of facilities by 7.5% over five years and by 15% by 2035.

## **Partnership activities:**

### **Sustainable Peterborough**

Peterborough County is a proud champion of Sustainable Peterborough and holding the Chair position of the Coordinating Committee. Sustainable Peterborough is a community based, regional collaborative working to integrate the sustainability framework identified in the Community Sustainability Plan throughout the Greater Peterborough Area. There are 11 theme areas that are significant to the Greater Peterborough Area, these include but are not limited to agriculture and local food, climate change, economic development, energy, waste and water.

### **GreenUP**

Peterborough County Council is committed to addressing and achieving the GHG emissions target reductions that are identified in our Climate Change Action Plan, in partnership with GreenUp. A Climate Action at Home Video Series has been created, including four DIY videos to support residents in taking action in their own homes. The videos feature expert advice from Chris Magwood from the Endeavour Center, Peterborough County staff and Selwyn Township. The videos explore the deeper retrofit measures that would be needed to eliminate or offset home's GHG emissions entirely.

### **Defining baseline energy consumption and savings to date:**

This updated plan uses energy consumption data from 2019-2023. This data is used as a baseline to track the progress of our energy consumption patterns and to determine the facilities that require additional energy conservation measures.

Since the last CDM plan, the County has significantly reduced its electricity, propane and natural gas consumption, and as of 2021, The County has entirely removed the consumption of oil.

In 2019, the County emitted 3,387,266 equivalent kilo-watt hours (ekWh) worth of emissions. In 2023, the County emitted 2,971,055 (ekWh) worth of emissions. In 5 years, Peterborough County reduced its overall energy consumption across all organizational buildings by 12%. Despite a decrease in energy consumption, the annual energy cost has increased, due to inflation and increased operating costs.

### **The greatest reductions were:**

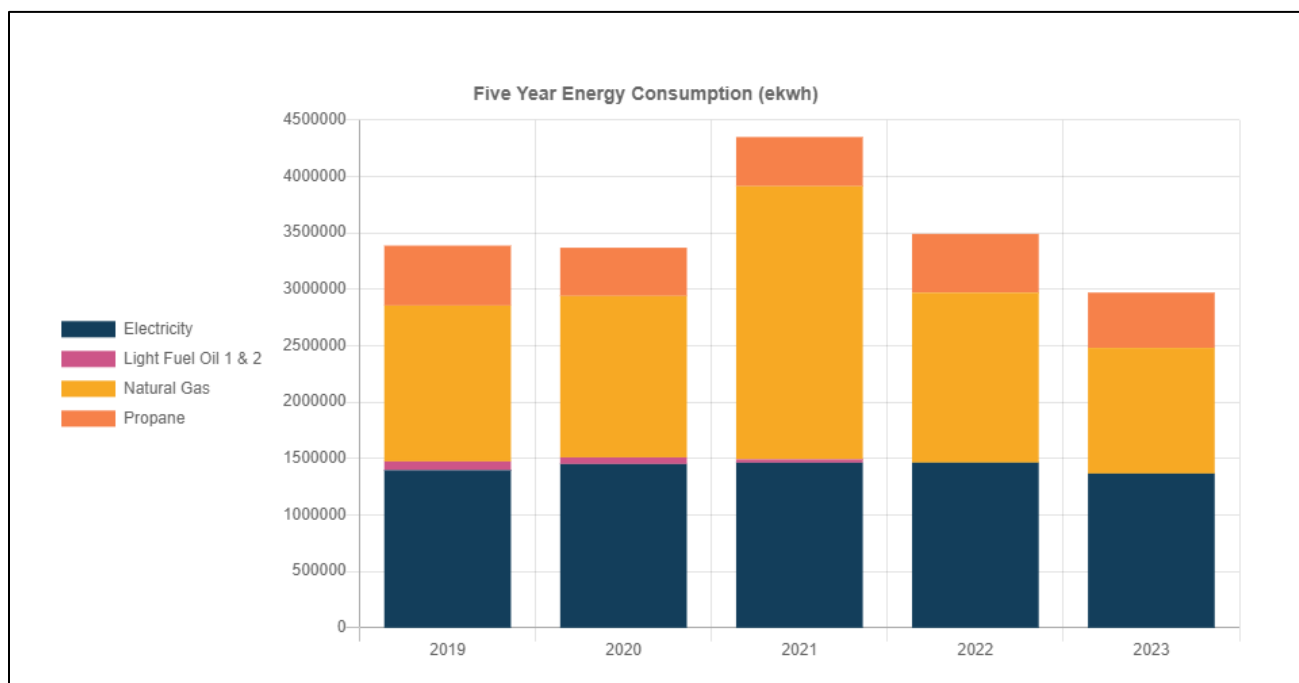
- 100% reduction in oil energy consumption with the removal of oil-fired furnaces for heating, replacing them with high efficiency propane radiant tube heaters.



- 41% reduction in energy consumption at the Armour Road Paramedic Service facility, because of a large LED lighting upgrade, removing a portion of inefficient high bay lighting.
- 36% reduction in energy consumption at the Millbrook Depot because of a combination of LED lighting upgrades and addition of attic insulation, bringing the R- value up to R-60.
- 20% reduction in energy consumption at the Douro Depot because of upgrades to the mechanical HVAC equipment and additional LED retrofits.

**Figure 1: Five Year Energy Consumption (ekWh) 2019-2023**

The following section includes an analysis of the County's total energy consumption, GHG emissions and energy intensity. Overall, the County has remained at a consistent level between 2019-2023, despite a growth in staff and equipment.



The Five-Year Energy Consumption graph provides a visual of the different energy consumptions from 2019-2023. From 2019-2021, the County emitted electricity, natural gas, propane, and light fuel oil 1 & 2. By 2021, the consumption of oil is no longer accounted for because of the replacement of the oil-fired furnaces. The information shows that there has been a significant reduction of emissions from 2019 to 2023. In 2021, energy consumption was the highest due to ongoing COVID-19 fresh air

guidelines and building exhaust systems used to control the spread of the virus in facilities. In 2023, the County consumed the least amount of energy of all five years. This is a result of ongoing energy efficiency goals and initiatives carried out across all departments.

**Table 1: 2023 Total Energy Cost**

<b>Facility Type</b>	<b>2023 Energy Cost</b>
Administration	\$92,560.09
Miscellaneous	\$30,993.79
Museum	\$47,129.23
PCCP (Peterborough County-City Paramedics)	\$75,869.77
Public Works	\$90,313.86
<b>Total</b>	<b>\$334,260.35</b>

The table above shows the total energy costs per facility type for the year 2023. The highest costing facility type was the administration building and lowest was miscellaneous types, which includes streetlights and beacons.

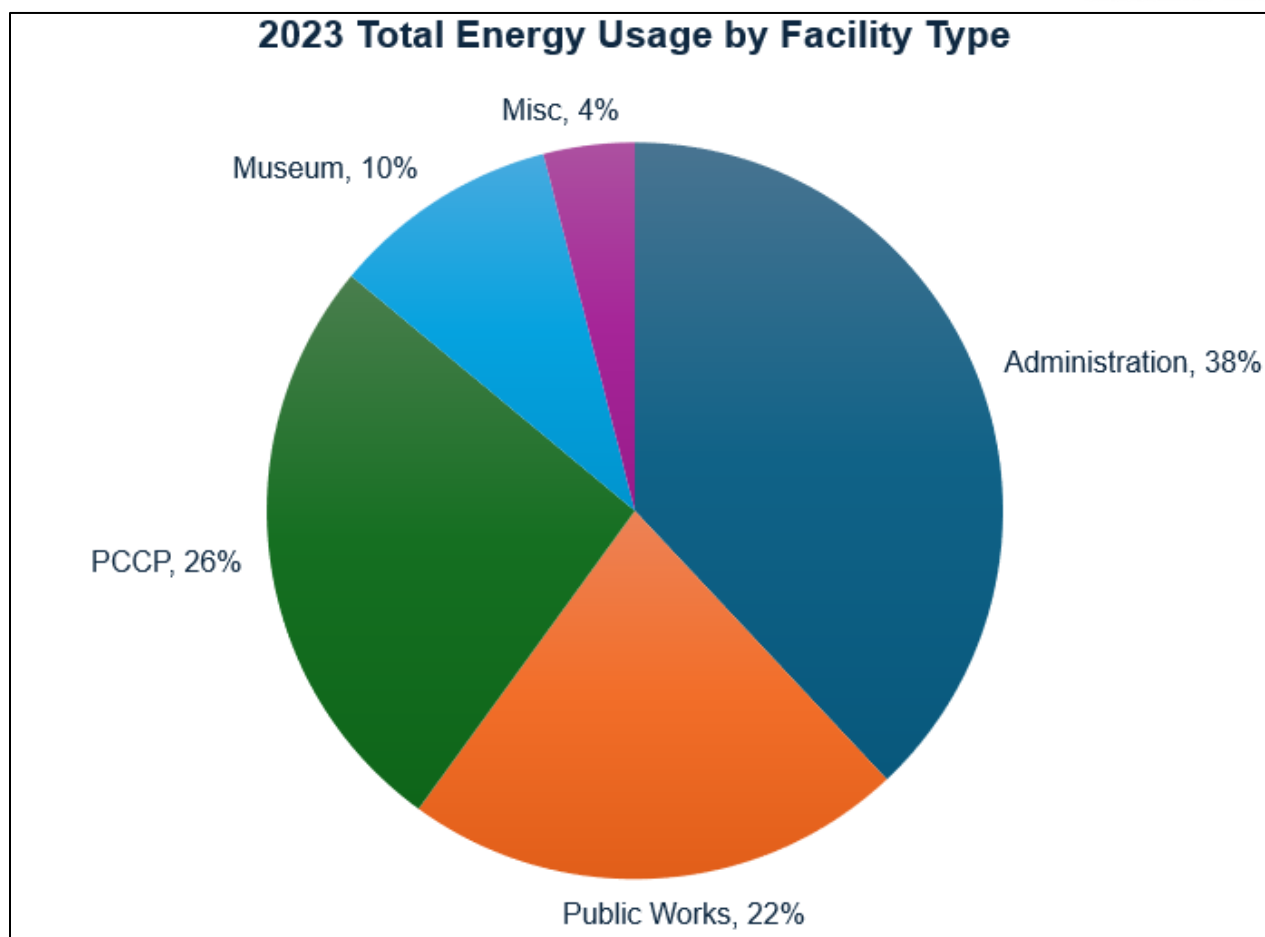
**Table 2: 2019 Total Energy Cost**

<b>Facility Type</b>	<b>2019 Energy Cost</b>
Administration	\$96,739.32
Miscellaneous	\$28,779.62
Museum	\$40,238.87
PCCP (Peterborough County-City Paramedics)	\$74,881.10
Public Works	\$74,504.39
<b>Total</b>	<b>\$318,984.21</b>

The table above shows the total energy cost per facility type for the year 2019. The highest costing facility type was the administration building and lowest was miscellaneous types, which included streetlights and beacons.

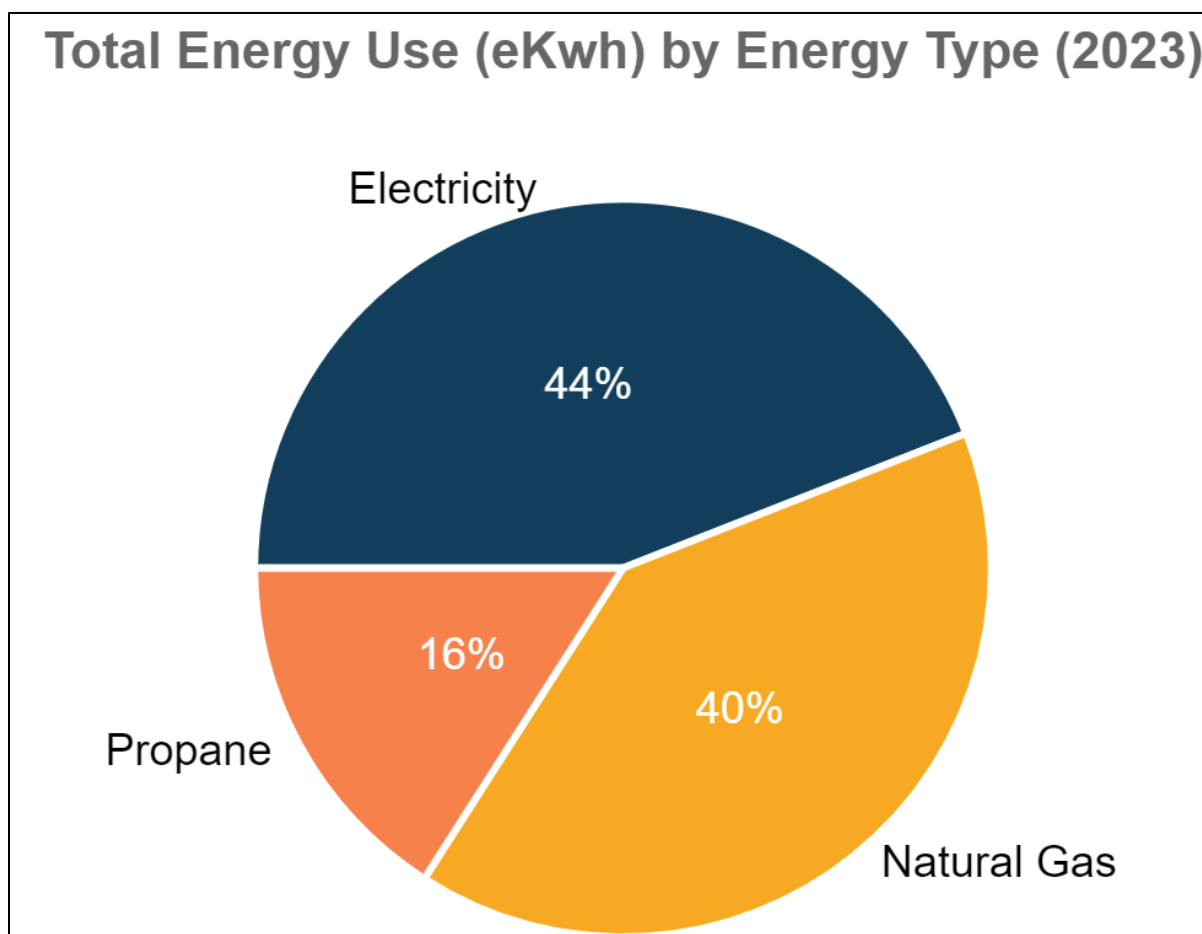
Despite a reduction in energy consumption from 2019 to 2023, total energy costs were greater in 2023. This is a result of increased operation costs and inflation.

**Figure 2: 2023 Total Energy Usage by Facility Type**



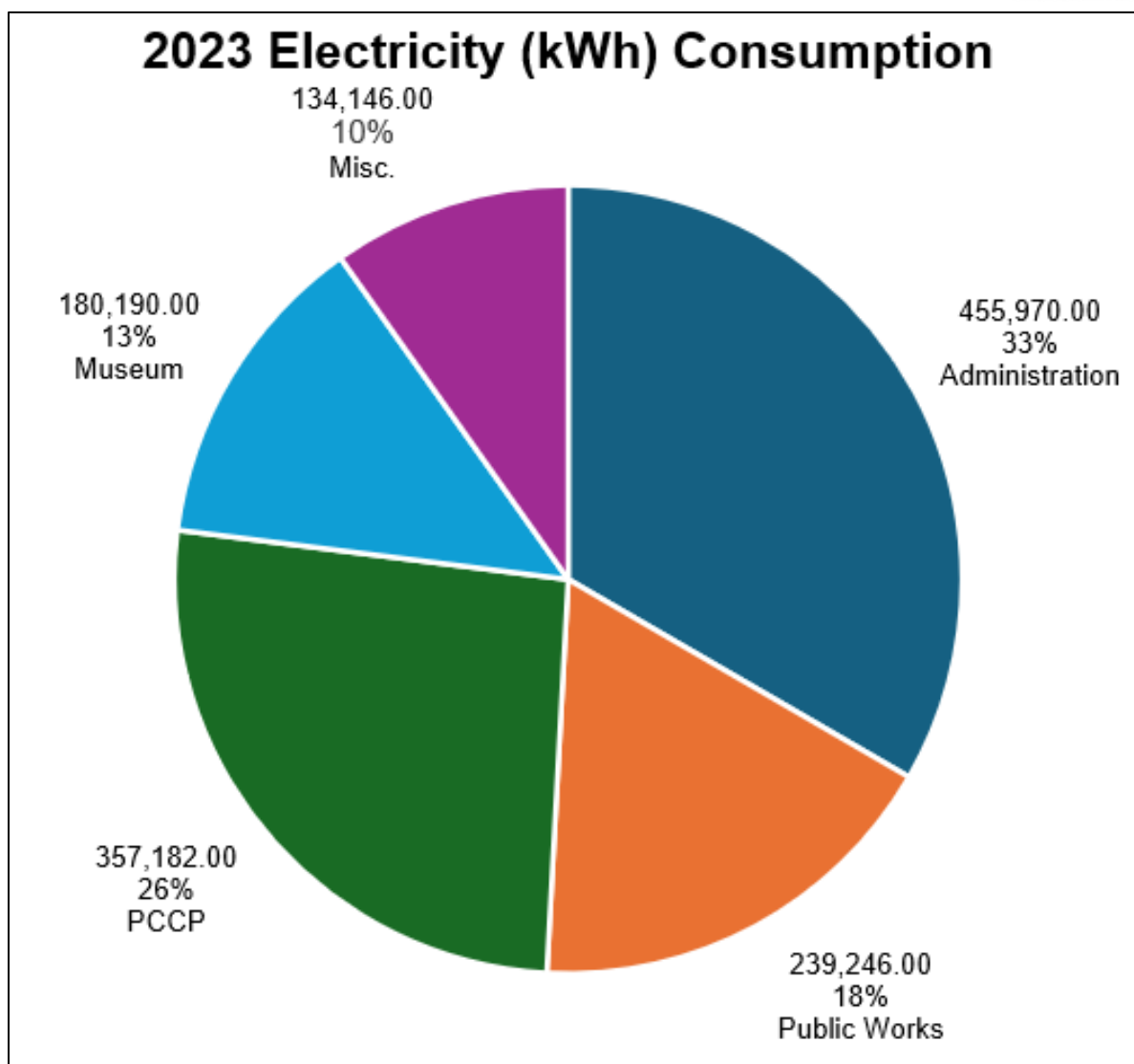
The 2023 Total Energy Usage by Facility Type pie graph provides a visual of where the County's emissions are being generated. The administration building consumed the most energy in 2023 with the smallest usage being miscellaneous facility type. The information is pulled from the Corporate Facility Energy Consumption & Emissions Report (2023) on LAS.

**Figure 3: Total Energy Use (ekWh) by Energy Type (2023)**



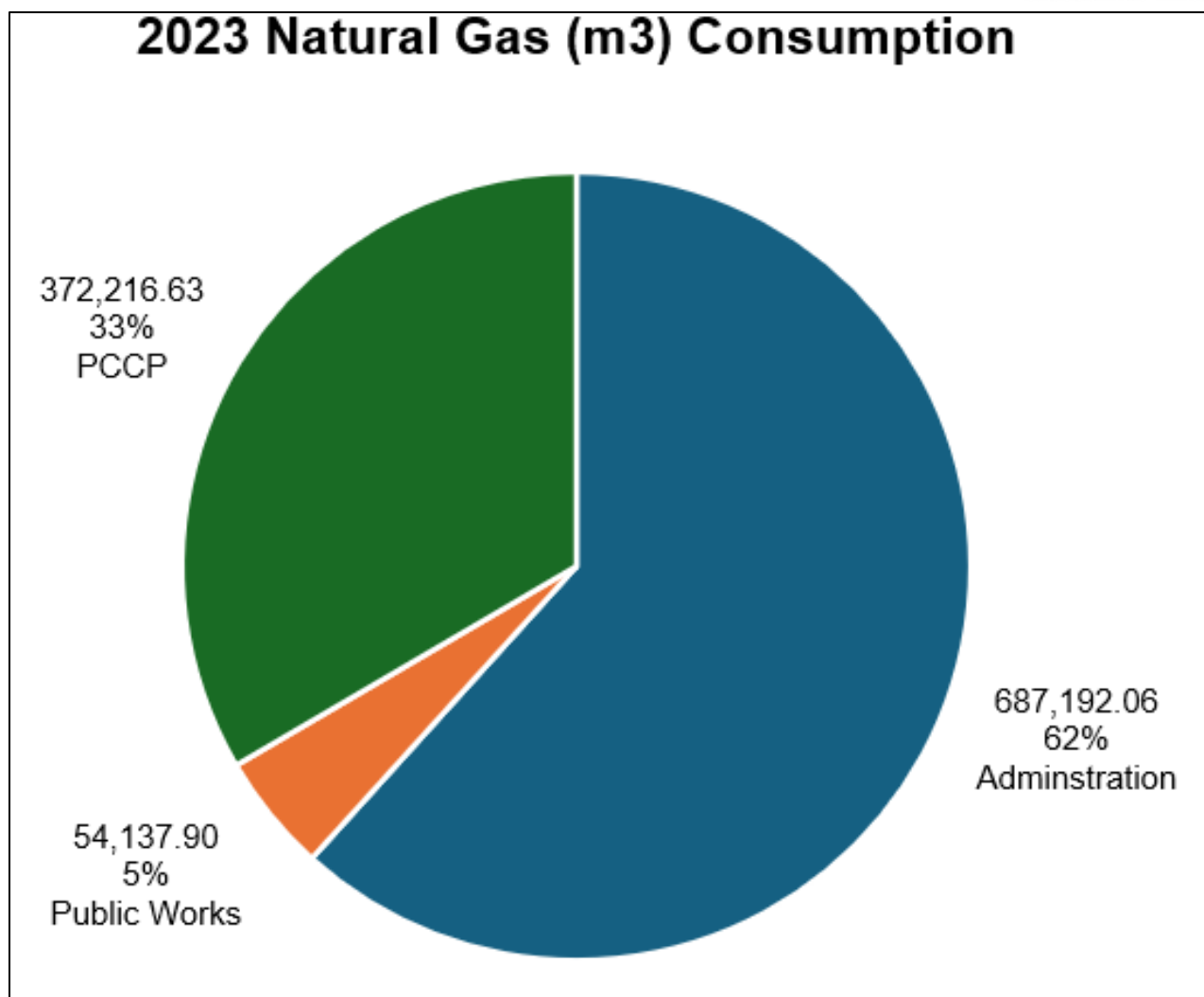
The Total Energy Use (eKwh) by Energy Type (2023) pie graph provides a visual of the energy types consumed at the County facilities. In 2023, electricity was consumed the most, followed by natural gas then propane. The information is from the Energy Planning Tool on LAS.

**Figure 4: 2023 Electricity (kWh) Consumption**



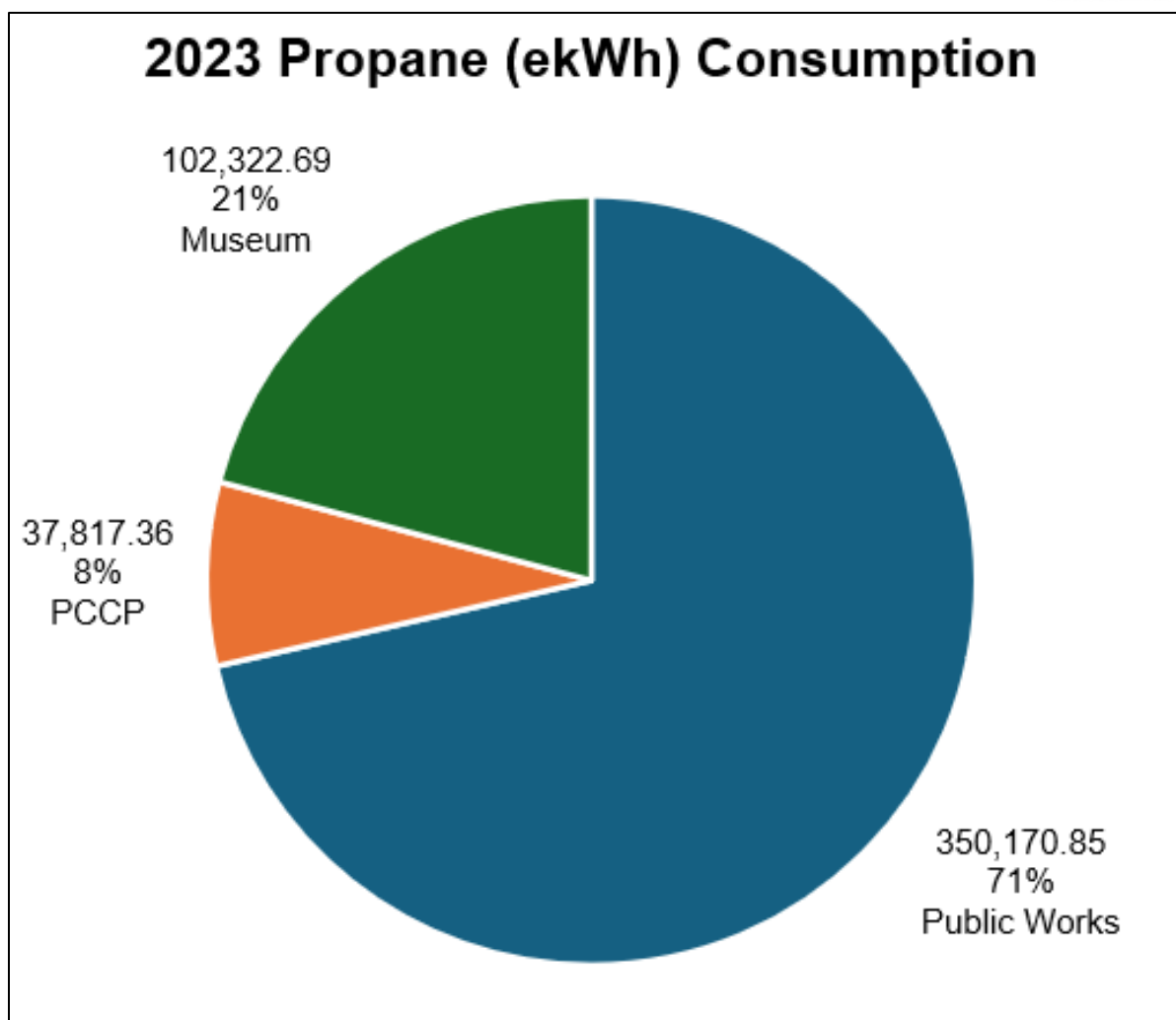
The 2023 Electricity (kWh) Consumption pie graph provides a visual of how much electricity the County facility types consumed that year. The administration building consumed the most electricity in 2023 and the miscellaneous facility type generated the least. This information is from the Energy Planning Tool on LAS.

**Figure 5: 2023 Natural Gas (m3) Consumption**



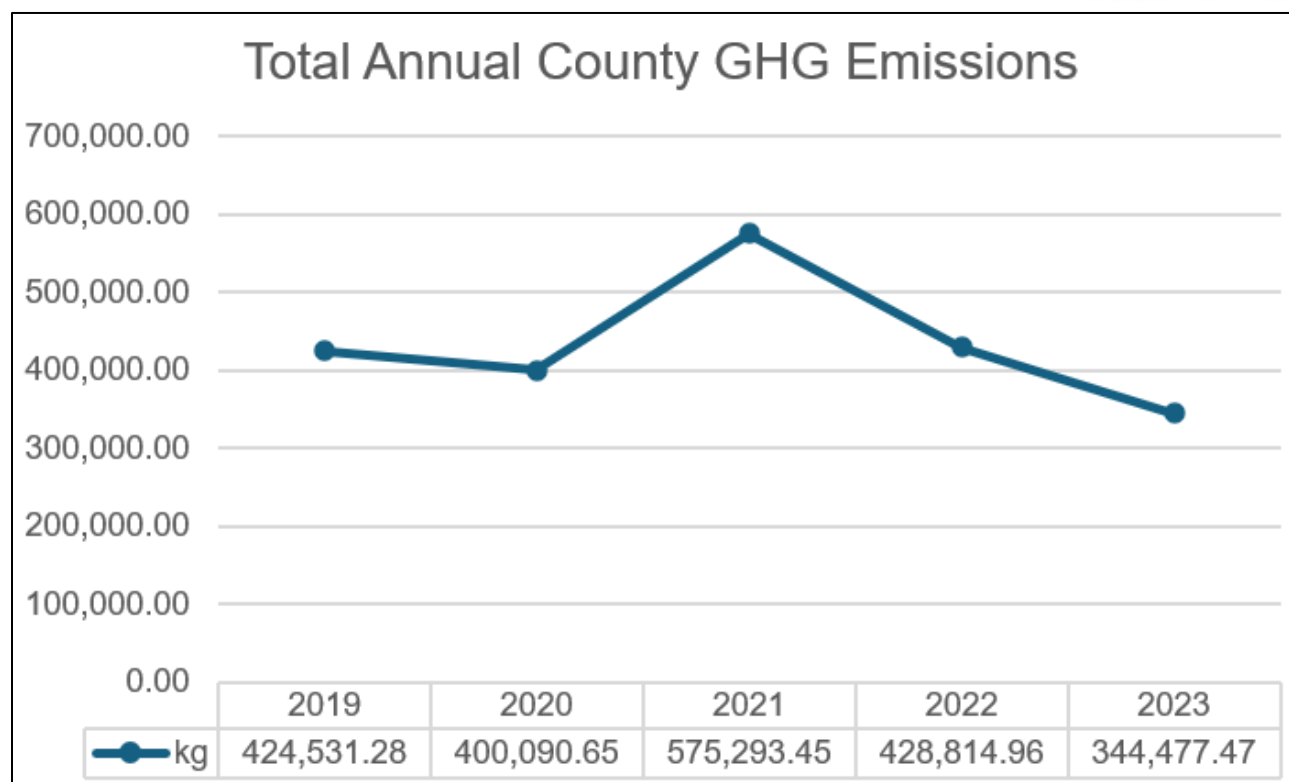
The 2023 Natural Gas (m3) Consumption pie graph provides a visual of how much natural gas the County facility types consumed that year. The administration building consumed the most natural gas that year and the public works depots consumed the least. The museum and miscellaneous facility types do not generate natural gas. The information is from the Energy Planning Tool on LAS.

**Figure 6: 2023 Propane (ekWh) Consumption**



The 2023 Propane (ekWh) Consumption pie graph provides a visual of how much propane the County facility types consumed that year. The public works depots consumed the most propane that year and the PCCP bases consumed the least. The administration building and miscellaneous facility types do not generate propane. The information is from the Energy Planning Tool on LAS.

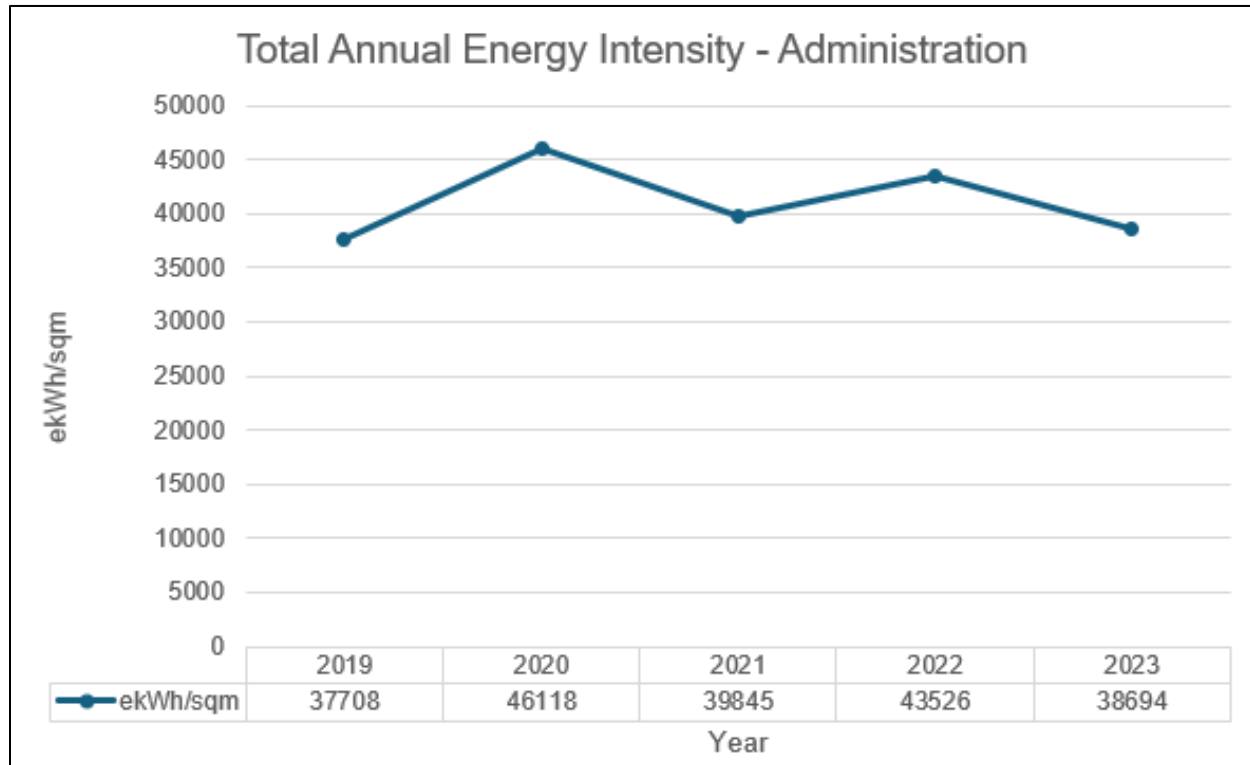
**Figure 7: Total Annual County GHG Emissions**



The line graph above provides a visual of the County's total annual GHG emissions from 2019-2023. From 2019 to 2023 our GHG emissions reduced by 19%. This reduction is a result from various energy retrofit projects and initiatives throughout all County facilities and properties. In 2021, the County emitted the most GHG emissions, this was a result from impacts of COVID-19 and the increase in HVAC ventilations within all properties.

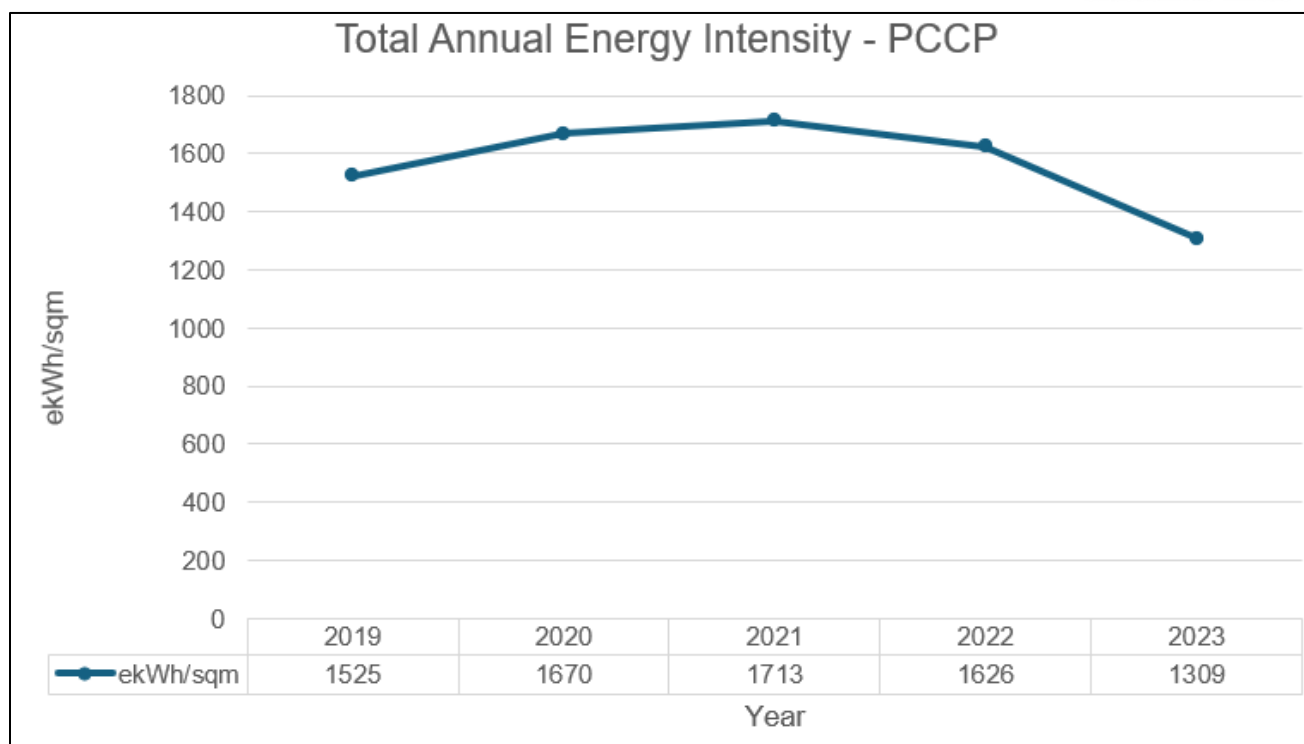


**Figure 8: Total Annual Energy Intensity – Administration Facilities**



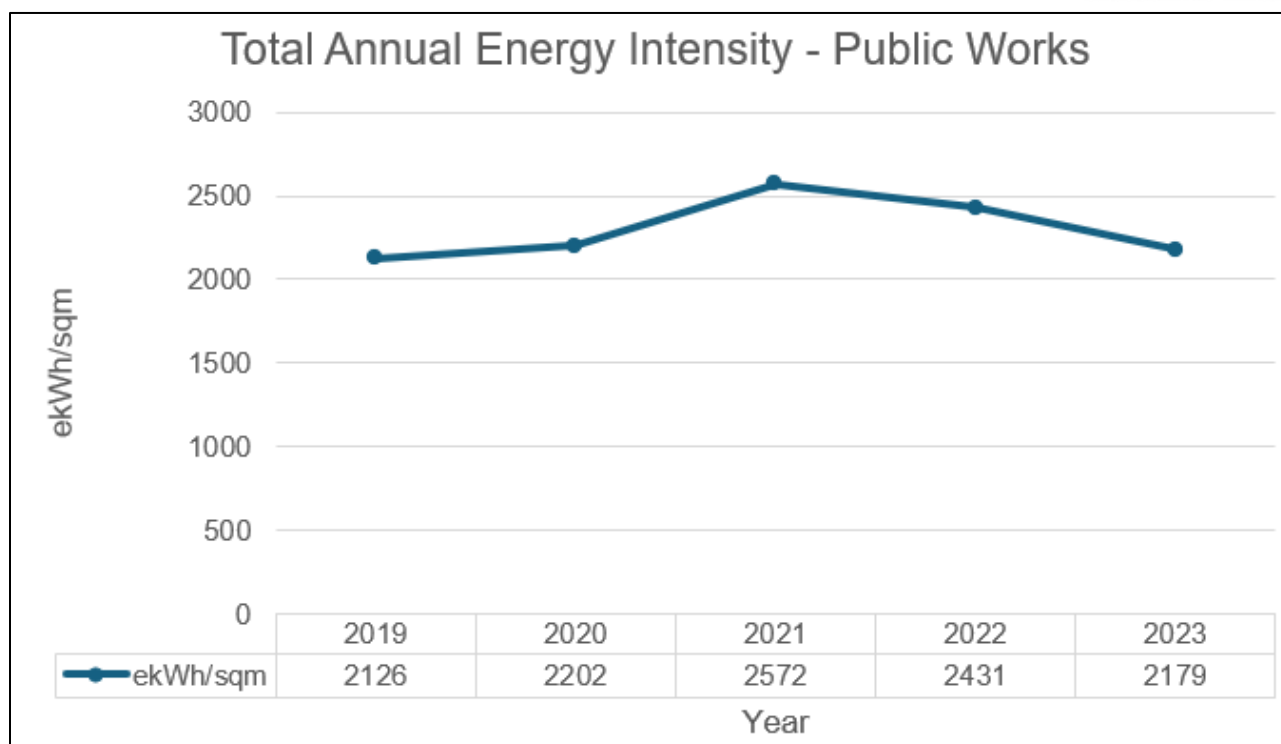
The line graph above provides a visual of the total annual energy intensity emitted by the administration facility. The administration building remains the least efficient of all our facilities. Its high energy intensity use is a result from aging infrastructure. This property was built in 1842 and is 182 years old.

**Figure 9: Total Annual Energy Intensity - PCCP**



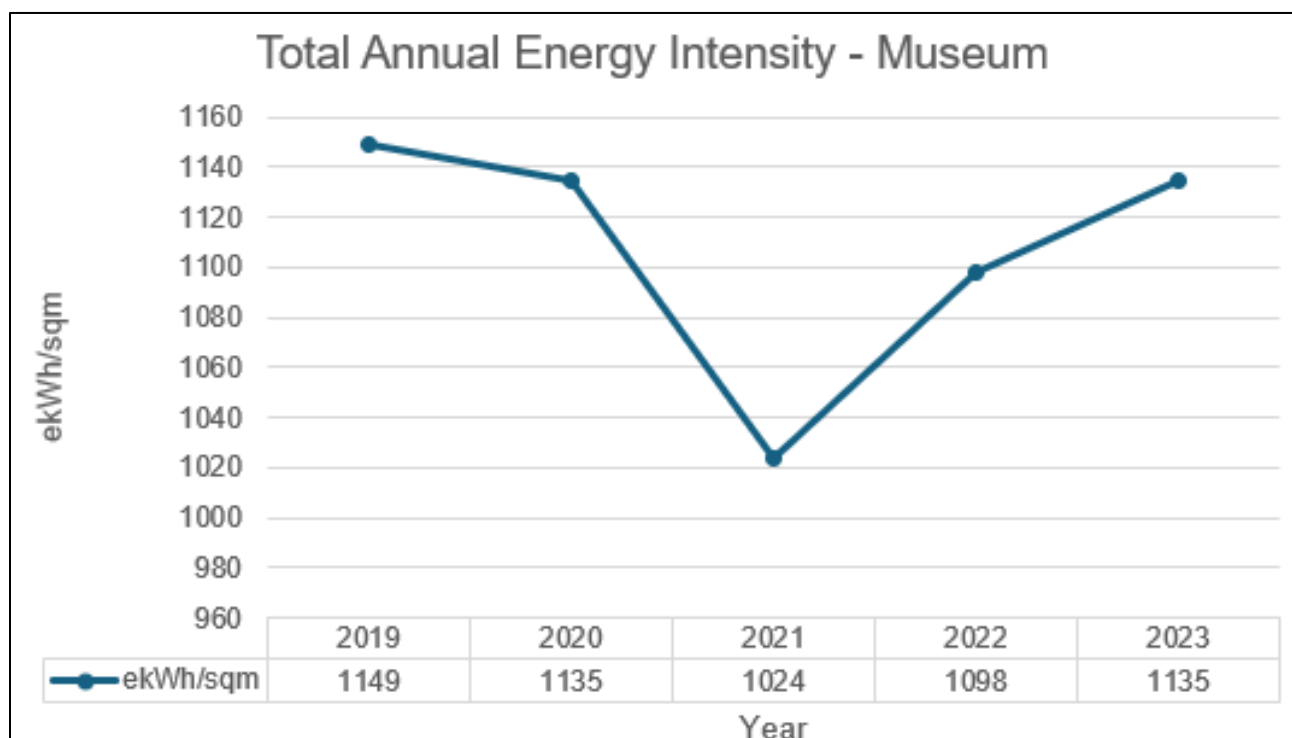
The line graph above provides a visual of the total annual energy intensity of the County's PCCP buildings from 2019-2023. From 2019, its total annual energy intensity has reduced by 14%.

**Figure 10: Total Annual Energy Intensity - Public Works**



The line graph above provides a visual of the total annual energy intensity emitted from the County's Public Works depots from 2019-2023. 2023 is comparable to 2019, however in 2021, the energy intensity was higher as a result from impacts of COVID-19, adding additional staff trailers, and increasing air circulation for facilities.

**Figure 11: Total Annual Energy Intensity - Museum**



The line graph above provides a visual of the total annual energy intensity emitted by the museum from 2019-2023. In 2021, the total annual energy intensity was the least, this is a result from the impacts of COVID-19 and the facility closure. The other years remain consistent.

### **Energy use and benchmark performance of operations:**

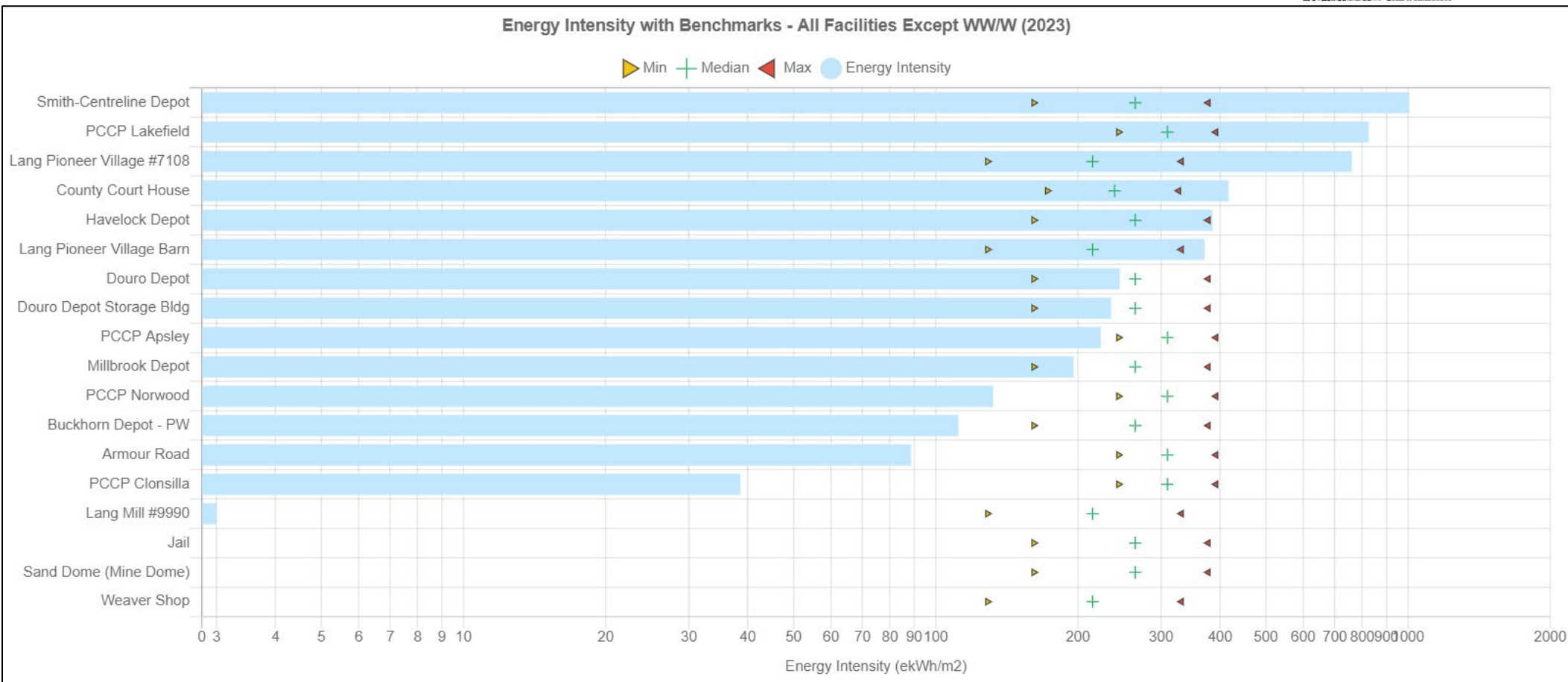
Annual energy reporting is required under Ontario Regulation 25/23, and it allows the County to track energy conservation efforts, to identify how energy is being used at our facilities and to identify potential energy conservation opportunities.

The spreadsheet below identifies the County's most recent annual energy report. Also, it compares the total energy consumption of our facilities from 2019 to 2023. With these findings, it has helped us report our achievements and identify areas requiring further energy management initiatives.

**Table 3: Corporate Facility Energy Consumption & Emissions Report (2023)**

Corporate Facility Energy Consumption & Emissions Report (2023)									
Facility	Electricity (kWh)	Natural Gas (m3)	Propane (ekWh)	Renewable?	GHG Emission/ (kg)	Energy Intensity (ekWh/sqm)	Total Energy 2019 (ekWh)	Total Energy 2023 (ekWh)	Change from 2019 to 2023 Total Energy
Armour Road	236,842.00	141,700.15	0.00	No	31,951.33	88.6516	641,949.68	378,542.15	Decrease by 41%
Bensfort Road Bridge	2,576.00	0.00	0.00	No	73.35	2576	2,376.00	2,576.00	Increase by 8%
Buckhorn Bridge Beacon	3,291.00	0.00	0.00	No	93.70	3291	3,036.00	3,291.00	Increase by 8%
Buckhorn Depot - PW	37,634.00	0.00	0.00	No	1,071.55	111.6736	40,488.00	37,634.00	Decrease by 7%
Causeway Bridge Lights	15,028.00	0.00	0.00	No	427.89	15028	13,860.00	15,028.00	Increase by 8%
Chemong Causeway Beacon	134.00	0.00	0.00	No	3.82	134	8.00	134.00	Increase by 94%
County Court House	449,672.00	655,213.08	0.00	No	129,362.56	416.9378	1,144,336.77	1,104,885.08	Decrease by 3%
CR 1 and Chemong Road (CI	6,392.00	0.00	0.00	No	182.00	6392	5,896.00	6,392.00	Increase by 8%
CR 10 & CR 21	2,492.00	0.00	0.00	No	70.95	2492	2,299.00	2,492.00	Increase by 8%
CR 10 & Sherbrooke Street	1,279.00	0.00	0.00	No	36.42	1279	1,089.00	1,279.00	Increase by 17%
CR 18 (Ward) / Willcox	7,335.00	0.00	0.00	No	208.85	7335	7,995.00	7,335.00	Decrease by 8%
CR 18 and CR 19	906.00	0.00	0.00	No	25.80	906	1,034.00	906.00	Decrease by 12%
CR 18 and CR 23 4-way stop	906.00	0.00	0.00	No	25.80	906	1,186.00	906.00	Decrease by 23%
CR 18 and CR 29 Flashers	3,267.00	0.00	0.00	No	93.02	3267	2,742.00	3,267.00	Increase by 19%
CR 2 and CR 34	1,050.00	0.00	0.00	No	29.90	1050	968.00	1,050.00	Increase by 8%
CR 23 and CR 29 Flashers	3,291.00	0.00	0.00	No	93.70	3291	2,760.00	3,291.00	Increase by 19%
CR 23 and CR 36	22,683.00	0.00	0.00	No	645.85	22683	20,922.00	22,683.00	Increase by 8%
CR 3 Parkhill Rd. W. Lights	2,743.00	0.00	0.00	No	78.10	2743	2,760.00	2,743.00	Decrease by 1%
Douro Depot	95,206.00	0.00	131,647.14	No	31,565.73	245.2466	284,769.95	226,853.14	Decrease by 20%
Douro Depot Storage Bldg	26,532.00	0.00	79,262.48	No	18,128.50	235.0988	94,493.33	105,794.48	Increase by 11%
Havelock Depot	24,882.00	0.00	139,261.23	No	31,232.28	385.3128	191,580.26	164,143.23	Decrease by 14%
Jail	0.00	0.00	0.00	No	0.00	0	0.00	0.00	N/A
Janitor's House	6,298.00	31,978.98	0.00	No	5,868.22	38276.981	37,276.39	38,276.98	Increase by 2%
Lakefield Stop Lights	29,111.00	0.00	0.00	No	828.88	29111	27,858.00	29,111.00	Increase by 4%
Lakefield Stop Lights	9,382.00	0.00	0.00	No	267.13	9382	12,595.00	9,382.00	Decrease by 25%
Lakefield Street Lights	8,706.00	0.00	0.00	No	247.89	8706	9,367.00	8,706.00	Decrease by 7%
Lang Mill #9990	510.00	0.00	0.00	No	14.52	3	603.00	510.00	Decrease by 15%
Lang Pioneer Village #7108	117,497.00	0.00	34,632.51	No	10,936.38	760.6476	155,209.25	152,129.51	Decrease by 2%
Lang Pioneer Village Barn	62,183.00	0.00	67,690.18	No	16,607.13	371.0662	107,774.51	129,873.18	Increase by 20%
Millbrook Depot	19,277.00	54,137.90	0.00	No	10,179.73	195.7731	114,179.82	73,414.90	Decrease by 36%
PCCP Apsley	28,585.00	0.00	37,817.36	No	9,102.85	223.577	80,102.14	66,402.36	Decrease by 17%
PCCP Clonsilla	41,810.00	151,020.71	0.00	No	28,056.27	38.5661	171,211.25	192,830.71	Increase by 13%
PCCP Lakefield	49,945.00	57,421.88	0.00	No	11,637.14	825.8991	123,119.00	107,366.88	Decrease by 13%
PCCP Norwood	0.00	22,073.89	0.00	No	3,926.83	132.179	20,628.52	22,073.89	Increase by 7%
Round About CR28	8,036.00	0.00	0.00	No	228.81	8036	12,687.00	8,036.00	Decrease by 37%
Sand Dome (Mine Dome)	3,528.00	0.00	0.00	No	100.45	0	3,806.00	3,528.00	Decrease by 7%
Security Lights	1,472.00	0.00	0.00	No	41.91	4066	6,384.00	1,472.00	Decrease by 77%
Security Lights	0.00	0.00	0.00	No	0.00	0	0.00	0.00	N/A
Security Lights	4,066.00	0.00	0.00	No	115.77	1472	4,082.00	4,066.00	Decrease by .5%
Smith-Centreline Depot	32,187.00	0.00	0.00	No	916.46	1005.8438	23,468.00	32,187.00	Increase by 37%
Wallace Point Rd Beacon	0.00	0.00	0.00	No	0.00	0	0.00	0.00	N/A
Weaver Shop	0.00	0.00	0.00	No	0.00	0	10,366.62	0.00	Decrease by 100% (moved to LPVM)

**Figure 12: Energy Intensity with Benchmarks – All Facilities Except WW/W (2023)**



The Energy Intensity with Benchmarks graph for 2023 provides a visual of how Peterborough County compares to the benchmark average. In 2023, only 4 of our facilities were higher than the benchmark average and the majority being significantly under. This information was pulled from the Energy Planning Tool on LAS.

## **Current and proposed energy conservation and demand management measures:**

The County has implemented several technical, organizational and behavioural measures since the previous CDM plan to help reduce our energy conservation and demand management measures.

### **Current Energy Conservation Initiatives**

Over the last several years Peterborough County has undertaken several initiatives that have seen reductions in overall energy consumption to buildings and properties throughout the County. The following list are the highlights of some of the initiatives and projects to benefit the County operations and the community.

#### **1. Facilities and Properties**

- Retrofit and replacement of inefficient lighting in over 10 properties, upgrading lights to highly efficient LED lights.
- Replacing an old end of life oil furnace with high efficiency propane radiant tube heaters.
- Addition of increase attic insulation at four (4) properties to increase the insulation values from as low as R-5 to R-60 and above.
- Re-roofing flat roof membranes projects, resulting in addition of ridged foam board to increase overall R value of existing roof systems.
- Replacement of aging rooftop HVAC units with high efficiency gas units with economizers.
- Upgraded exterior lighting at all County properties with LED lighting.
- Solar powered ambulance equipment charging systems were added to several trucks.
- Installation of Solar Tube lighting system that reduces the need for daytime electric lighting.
- Installation of occupancy lighting control devices to reduce the frequency and length of office lighting being used.
- Installation of stratification fans to increase air flow and reduce the need for heating in Emergency Service garages.
- On going upgrades of toilets and urinal flush vales, faucets and taps to low flow motion activated fixtures.

- Window replacement with high efficiency thermal pane units at several sites.
- Replacement of old inefficient garage doors, upgrading to new insulated R-12 doors.

## **2. Waste Management**

- The County operates a garbage to garden program where residents can sign up to purchase a backyard composter or digester. County staff deliver and install the composter or digester for the resident at their home and teach them how to use it. This program diverts food waste from landfill and reduce greenhouse gases.
- The County accepts organics (food waste) drop off at five transfer sites across the County, and has a curbside collection program in the village of Bridgenorth. These programs divert food waste from landfill and reduce greenhouse gases.
- The County continued operations at five household hazardous waste depots and collected electronics for recycling at 12 transfer stations which remove harmful materials from landfill to protect the environment.
- The County collected leaf and yard waste curbside from 14 communities which is composted and diverts the yard waste from landfill.
- The County continued to operate the blue box program curbside and at all transfer stations until the transition to Producer Responsibility on January 1, 2024. However, recyclable material deemed ineligible by the Province is being collected through a contract with the County. Collectively, this diverts recyclable material from landfill.
- In 2023 waste staff started diverting office food waste through utilizing a countertop composter and implementing recycling programs for non-blue box material like coffee bags.

## **3. Fleet and Roads Operations**

- Currently four (4) solar powered road condition cameras throughout the County monitoring road conditions, with four (4) additional cameras being added in 2024.
- Right sizing of departmental vehicles that meet the needs of each department but are more fuel efficient.
- Creation of purchasing procedures to see vehicle replacement sooner, to replace older inefficient vehicles with newer fuel efficient vehicles/ EV.



#### **4. Operational Strategies**

Along with implementing the above energy efficiency measures, The County also has implemented operational strategies to monitor and reduce building energy use.

- Regular service schedule to all mechanical and electrical systems to ensure efficient operation at all times.
- Quarterly site inspections with a focus on energy reduction measures.
- Ensuring annual budget to carry out energy saving projects each year.
- Monitoring grant and funding opportunities the County can leverage for conservation projects.

#### **Renewable Energy Current Initiatives:**

- Solar power gateway sign lighting
- Solar power ambulance equipment charging
- Solar power traffic signals and sign lighting
- Solar operated traffic cameras

The County understands the importance of energy conservation and demand management measures. In table 4 it outlines the future goals that the County plans to incorporate within its organization.

The County understands the importance of energy efficient operations. In table 5 and 6 it will list any County Solar PV systems already in use as well as proposed Solar PV systems.

**Table 4: Future Goals - Peterborough County Energy Conservation and Demand Management Measures**

To achieve the Countys energy management goals, the following list of potential projects and initiatives are detailed below.

<b>Initiatives / Goals</b>	<b>Description</b>	<b>Estimated Cost</b>	<b>Status</b>	<b>Category</b>
Building envelopes upgrades	Upgrades to doors, windows, and sealants at the County Courthouse. 1847 heritage building with old wood windows and aging sealants. (Multiyear project)	\$300,000	3-10 years	Buildings
Electric Vehicles/ Hybrid and Charging stations	Renewal of fleet with green/electric vehicles implementing a green fleet policy and right sizing vehicles for County staff.	\$100,000	Underway – 5 years	Fleet
Electric Vehicle Chargers	Installation of public use electric vehicles charging stations at the prominent County owned buildings.	Unknown	2-10 years	Fleet/ Buildings
HVAC - Boilers - Pumps	Upgrades and replacements of aging mechanical systems at the County Courthouse, ensuring upgrades are energy efficiency with new technology and dual fuel systems.	\$100,000	5-10 years	Buildings
Fans, Blower	Continue to replace equipment with new high efficiency equipment according to energy guidelines and building assessments.	\$30,000	2-8 years	Buildings
Insulation Upgrades	Continue to upgrade building insulations (roof, attic, wall) during building renovation projects.	Unknown	On Going	Buildings

Roof Replacement (Flat)	Future roof replacement at County Courthouse and Armour EMS to have upgraded rigid insulation with a minimum R – value of R- 15, to add and increase current R values currently in place.	180,000	3-6 years	Buildings
Window Replacement	Replace old inefficient windows at various sites with new highly efficient windows.	80,000	2-8 years	Buildings
Education / Training	Train and educate staff and leadership team on sustainability and energy management to further reinforce staff culture of conservation and behaviors. Build staff programs around day-to-day energy conservation.	Unknown	On Going	Organizational
Future Construction	Construction of County buildings to require energy star ratings and considerations of sustainable building practices will be reviewed and implanted where possible. Establish a Green Building Policy to require new municipal buildings and major renovations to be built to high environmental standards.	Unknown	On Going	Organizational
LED Lighting	Upgrade current sodium-vapor spotlights in Victoria Park with new efficient LED spotlights.	\$15,000	1-2 years	Parks
Plumbing Fixtures Upgrades	Ongoing replacement of failed plumbing fixtures will be replaced with low flow automatic fixtures.	\$5,000	On Going	Buildings
Building Automation	Implement and upgrade building automation systems within County buildings and monitored thermostats. (Multi Year Project)	\$80,000	3-8 years	Buildings
Regular Inspections	Conduct regular building energy audits to ensure equipment to ensure optimal building operation.	Unknown	On Going	Buildings
Audits	Conduct Audits of each facility to identify opportunities to improve energy efficiency.	Unknown	On Going	Buildings

LED Lighting	Upgrade current metal halide fixtures in courtrooms at the County Courthouse high bay fixtures that have reach end of life.	\$50,000	2-3 years	Buildings
Solar and renewable energy	Explore the future use of ground source technology, solar thermal technology and heat pump technology to supplement current systems.	Unknown	3-8 years	Buildings

**Table 5: Current Solar PV (photovoltaic) systems**

Project Name	Description
Solar Ambulance Equipment Chargers	Rooftop mounted solar panels were added to several trucks to charge onboard medical equipment while the truck are not running.
Solar Power Road Monitoring Cameras	Cameras were installed throughout the County to monitor road conditions.

**Table 6: Proposed Solar PV (photovoltaic) systems**

Project Name	Description
Solar Array – Works Yards	Potential to add solar array panels to open area of public works yards
New Construction Solar	Look into possibility of solar on all new construction projects

## **Evaluation Progress and Reporting:**

### Performance Reporting

The energy conservation and demand management plan is a living document that will be monitored and updated yearly. Senior management team will continue to review and report to council on the progress of the initiative implementation and the associated cost savings, cost containment and cost avoidances that are of a direct impact from the plans goals and objectives.

### **Conclusion:**

Peterborough County is committed to energy conservation and reducing its GHG emissions as a key component of its operations. This commitment has allowed the municipality to significantly reduce its energy consumption by 12% from 2019 to 2023. Through proactive monitoring of the County's energy consumption, new facility developments and service equipment upgrades will be considered in an environmentally friendly and sustainable way. Peterborough County will continue striving to manage its energy usage responsibly and work towards the goals and targets set out in this plan.

This plan has been prepared by Peterborough County Facilities Department;

David Justynski – Manager of Facilities

Kristina Jegeris – Administrative Services Assistant – Admin, Facilities & Public Works

**Resources:**

County of Peterborough. (2024). <https://www.ptbocounty.ca/en/index.aspx>.

GreenUp. (2024). <https://greenup.on.ca/>.

LAS – AMO Business Services (2024). <https://www.las.on.ca>

Peterborough and The Kawarthas Economic Development. (2024).  
<https://investptbo.ca/>.

Sustainable Peterborough. (2024). <https://sustainablepeterborough.ca/>.

## **Appendix A: 2014-2023 Energy Consumption Summaries:**

The tables below provide a visual summary of all the energy and GHG emissions for all the County's facilities. Total amounts for each year are listed at the bottom of each table.

2023 - Energy Consumption Summary								
Facility	Electricity (ekWh)	Natural Gas (m3)	Propane (ekWh)	Oil (ekWh)	Total Energy (ekWh)	Building Area (m2)	Energy Intensity (ekWh/sqm)	GHG Emissions (kg)
Armour Road	236,842.00	141,700.15	0.00	0.00	378,542.15	4270	88.6516	31,951.33
Bensfort Road Bridge	2,576.00	0.00	0.00	0.00	2,576.00	1	2576	73.35
Buckhorn Bridge Beacon	3,291.00	0.00	0.00	0.00	3,291.00	1	3291	93.70
Buckhorn Depot - PW	37,634.00	0.00	0.00	0.00	37,634.00	337	111.6736	1,071.55
Causeway Bridge Lights	15,028.00	0.00	0.00	0.00	15,028.00	1	15028	427.89
Chemong Causeway Beacon	134.00	0.00	0.00	0.00	134.00	1	134	3.82
County Court House	449,672.00	655,213.08	0.00	0.00	1,104,885.08	2650	416.9378	129,362.56
CR 1 and Chemong Road (CR18)	6,392.00	0.00	0.00	0.00	6,392.00	1	6392	182.00
CR 10 & CR 21	2,492.00	0.00	0.00	0.00	2,492.00	1	2492	70.95
CR 10 & Sherbrooke Street	1,279.00	0.00	0.00	0.00	1,279.00	1	1279	36.42
CR 18 (Ward) / Willcox	7,335.00	0.00	0.00	0.00	7,335.00	1	7335	208.85
CR 18 and CR 19	906.00	0.00	0.00	0.00	906.00	1	906	25.80
CR 18 and CR 23 4-way stop	906.00	0.00	0.00	0.00	906.00	1	906	25.80
CR 18 and CR 29 Flashers	3,267.00	0.00	0.00	0.00	3,267.00	1	3267	93.02
CR 2 and CR 34	1,050.00	0.00	0.00	0.00	1,050.00	1	1050	29.90
CR 23 and CR 29 Flashers	3,291.00	0.00	0.00	0.00	3,291.00	1	3291	93.70
CR 23 and CR 36	22,683.00	0.00	0.00	0.00	22,683.00	1	22683	645.85
CR 3 Parkhill Rd. W. Lights	2,743.00	0.00	0.00	0.00	2,743.00	1	2743	78.10
Douro Depot	95,206.00	0.00	131,647.14	0.00	226,853.14	925	245.2466	31,565.73
Douro Depot Storage Bldg	26,532.00	0.00	79,262.48	0.00	105,794.48	450	235.0988	18,128.50
Havelock Depot	24,882.00	0.00	139,261.23	0.00	164,143.23	426	385.3128	31,232.28
Janitor's House	6,298.00	31,978.98	0.00	0.00	38,276.98	1	38276.981	5,868.22
Lakefield Stop Lights	29,111.00	0.00	0.00	0.00	29,111.00	1	29111	828.88
Lakefield Stop Lights	9,382.00	0.00	0.00	0.00	9,382.00	1	9382	267.13
Lakefield Street Lights	8,706.00	0.00	0.00	0.00	8,706.00	1	8706	247.89
Lang Mill #9990	510.00	0.00	0.00	0.00	510.00	170	3	14.52
Lang Pioneer Village #7108	117,497.00	0.00	34,632.51	0.00	152,129.51	200	760.6476	10,936.38
Lang Pioneer Village Barn	62,183.00	0.00	67,690.18	0.00	129,873.18	350	371.0662	16,607.13
Millbrook Depot	19,277.00	54,137.90	0.00	0.00	73,414.90	375	195.7731	10,179.73
PCCP Apsley	28,585.00	0.00	37,817.36	0.00	66,402.36	297	223.577	9,102.85
PCCP Clonsilla	41,810.00	151,020.71	0.00	0.00	192,830.71	5000	38.5661	28,056.27
PCCP Lakefield	49,945.00	57,421.88	0.00	0.00	107,366.88	130	825.8991	11,637.14
PCCP Norwood	0.00	22,073.89	0.00	0.00	22,073.89	167	132.179	3,926.83
Round About CR28	8,036.00	0.00	0.00	0.00	8,036.00	1	8036	228.81
Sand Dome (Mine Dome)	3,528.00	0.00	0.00	0.00	3,528.00	32	0	100.45
Security Lights	1,472.00	0.00	0.00	0.00	1,472.00	1	4066	41.91
Security Lights	4,066.00	0.00	0.00	0.00	4,066.00	1	1472	115.77
Smith-Centreline Depot	32,187.00	0.00	0.00	0.00	32,187.00	32	1005.8438	916.46
<b>Total</b>	<b>1,366,734.00</b>	<b>1,113,546.59</b>	<b>490,310.90</b>	<b>0.00</b>	<b>2,970,591.49</b>	<b>15,833.00</b>	<b>177,462.45</b>	<b>344,477.47</b>



2022 - Energy Consumption Summary								
Facility	Electricity (ekWh)	Natural Gas (m3)	Propane (ekWh)	Oil (ekWh)	Total Energy (ekWh)	Building Area (m2)	Energy Intensity (ekWh/sqm)	GHG Emissions (kg)
Armour Road	282,324.00	376,489.00	0.00	0.00	658,813.00	4270	154.2888	75,014.07
Bensfort Road Bridge	2,592.00	0.00	0.00	0.00	2,592.00	1	2592	73.80
Buckhorn Bridge Beacon	3,312.00	0.00	0.00	0.00	3,312.00	1	3312	94.30
Buckhorn Depot - PW	39,845.00	0.00	0.00	0.00	39,845.00	337	118.2344	1,134.51
Causeway Bridge Lights	15,120.00	0.00	0.00	0.00	15,120.00	1	15120	430.51
Chemong Causeway Beacon	113.00	0.00	0.00	0.00	113.00	1	113	3.22
County Court House	485,999.00	751,978.99	0.00	0.00	1,237,977.99	2650	467.1615	147,611.05
CR 1 and Chemong Road (CR18)	6,432.00	0.00	0.00	0.00	6,432.00	1	6432	183.14
CR 10 & CR 21	2,508.00	0.00	0.00	0.00	2,508.00	1	2508	71.41
CR 10 & Sherbrooke Street	1,188.00	0.00	0.00	0.00	1,188.00	1	1188	33.83
CR 18 (Ward) / Willcox	7,380.00	0.00	0.00	0.00	7,380.00	1	7380	210.13
CR 18 and CR 19	912.00	0.00	0.00	0.00	912.00	1	912	25.97
CR 18 and CR 23 4-way stop	912.00	0.00	0.00	0.00	912.00	1	912	25.97
CR 18 and CR 29 Flashers	3,288.00	0.00	0.00	0.00	3,288.00	1	3288	93.62
CR 2 and CR 34	1,056.00	0.00	0.00	0.00	1,056.00	1	1056	30.07
CR 23 and CR 29 Flashers	3,312.00	0.00	0.00	0.00	3,312.00	1	3312	94.30
CR 23 and CR 36	22,824.00	0.00	0.00	0.00	22,824.00	1	22824	649.87
CR 3 Parkhill Rd. W. Lights	2,760.00	0.00	0.00	0.00	2,760.00	1	2760	78.59
Douro Depot	90,222.00	0.00	177,507.45	0.00	267,729.45	925	289.4372	41,475.66
Douro Depot Storage Bldg	30,312.00	0.00	86,117.27	0.00	116,429.27	450	258.7317	19,738.59
Havelock Depot	30,580.00	0.00	132,406.44	0.00	162,986.44	426	382.5973	29,892.06
Janitor's House	7,169.00	35,890.00	0.00	0.00	43,059.00	1	43059.0029	6,588.77
Lakefield Stop Lights	29,292.00	0.00	0.00	0.00	29,292.00	1	29292	834.03
Lakefield Stop Lights	9,132.00	0.00	0.00	0.00	9,132.00	1	9132	260.02
Lakefield Street Lights	8,796.00	0.00	0.00	0.00	8,796.00	1	8796	250.45
Lang Mill #9990	153.00	0.00	0.00	0.00	153.00	170	0.9	4.36
Lang Pioneer Village #7108	137,115.00	0.00	19,031.71	0.00	156,146.71	200	780.7336	8,075.52
Lang Pioneer Village Barn	37,237.00	0.00	73,532.57	0.00	110,769.57	350	316.4845	17,177.40
Millbrook Depot	20,751.00	86,510.10	0.00	0.00	107,261.10	375	286.0296	15,980.55
PCCP Apsley	28,396.00	0.00	32,488.19	0.00	60,884.19	297	204.9973	7,929.41
PCCP Clonsilla	42,453.00	146,971.53	0.00	0.00	189,424.53	5000	37.8849	27,354.25
PCCP Lakefield	56,955.00	83,672.49	0.00	0.00	140,627.49	130	1081.7499	16,506.59
PCCP Norwood	0.00	24,592.68	0.00	0.00	24,592.68	167	147.2615	4,374.91
Round About CR28	8,592.00	0.00	0.00	0.00	8,592.00	1	8592	244.64
Sand Dome (Mine Dome)	4,199.00	0.00	0.00	0.00	4,199.00	32	0	119.56
Security Lights	1,268.00	0.00	0.00	0.00	1,268.00	1	4044	36.10
Security Lights	4,044.00	0.00	0.00	0.00	4,044.00	1	1268	115.14
Smith-Centreline Depot	35,072.00	0.00	0.00	0.00	35,072.00	32	1096	998.61
Wallace Point Rd Beacon	1.00	0.00	0.00	0.00	1.00	1	1	0.03
<b>Total</b>	<b>1,463,616.00</b>	<b>1,506,104.79</b>	<b>521,083.63</b>	<b>0.00</b>	<b>3,490,804.42</b>	<b>15,834.00</b>	<b>183,515.50</b>	<b>423,815.01</b>

2021- Energy Consumption Summary

Facility	Electricity (ekWh)	Natural Gas (m3)	Propane(ekWh)	Oil (ekWh)	Total Energy (ekWh)	Building Area (m2)	Energy Intensity (ekWh/sqm)	GHG Emissions (kg)
Armour Road	237,523.00	1,329,800.60	0.00	0.00	1,567,323.60	4270	367.0547	243,327.70
Bensfort Road Bridge	2,592.00	0.00	0.00	0.00	2,592.00	1	2592	73.80
Buckhorn Bridge Beacon	3,312.00	0.00	0.00	0.00	3,312.00	1	3312	94.30
Buckhorn Depot - PW	37,342.00	0.00	0.00	0.00	37,342.00	337	110.8071	1,063.24
Causeway Bridge Lights	15,120.00	0.00	0.00	0.00	15,120.00	1	15120	430.51
Chemong Causeway Beacon	68.00	0.00	0.00	0.00	68.00	1	68	1.94
County Court House	494,356.00	785,445.86	0.00	0.00	1,279,801.86	2650	482.9441	153,802.59
CR 1 and Chemong Road (CR18)	6,432.00	0.00	0.00	0.00	6,432.00	1	6432	183.14
CR 10 & CR 21	2,508.00	0.00	0.00	0.00	2,508.00	1	2508	71.41
CR 10 & Sherbrooke Street	1,188.00	0.00	0.00	0.00	1,188.00	1	1188	33.83
CR 18 (Ward) / Willcox	7,380.00	0.00	0.00	0.00	7,380.00	1	7380	210.13
CR 18 and CR 19	912.00	0.00	0.00	0.00	912.00	1	912	25.97
CR 18 and CR 23 4-way stop	912.00	0.00	0.00	0.00	912.00	1	912	25.97
CR 18 and CR 29 Flashers	3,288.00	0.00	0.00	0.00	3,288.00	1	3288	93.62
CR 2 and CR 34	1,056.00	0.00	0.00	0.00	1,056.00	1	1056	30.07
CR 23 and CR 29 Flashers	3,312.00	0.00	0.00	0.00	3,312.00	1	3312	94.30
CR 23 and CR 36	22,824.00	0.00	0.00	0.00	22,824.00	1	22824	649.87
CR 3 Parkhill Rd. W. Lights	2,760.00	0.00	0.00	0.00	2,760.00	1	2760	78.59
Douro Depot	82,531.00	0.00	149,553.97	0.00	232,084.97	925	250.9027	35,129.72
Douro Depot Storage Bldg	40,862.00	0.00	35,244.17	29,692.78	105,798.95	450	235.1088	16,423.77
Havelock Depot	27,596.00	0.00	143,135.07	0.00	170,731.07	426	400.7772	32,158.63
Janitor's House	10,369.00	28,992.58	0.00	0.00	39,361.58	1	39361.5757	5,452.87
Lakefield Stop Lights	30,411.00	0.00	0.00	0.00	30,411.00	1	30411	865.89
Lakefield Stop Lights	12,097.00	0.00	0.00	0.00	12,097.00	1	12097	344.44
Lakefield Street Lights	8,926.00	0.00	0.00	0.00	8,926.00	1	8926	254.15
Lang Mill #9990	32.00	0.00	0.00	0.00	32.00	170	0.1882	0.91
Lang Pioneer Village #7108	124,696.00	0.00	15,860.93	0.00	140,556.93	200	702.7847	7,026.93
Lang Pioneer Village Barn	51,340.00	0.00	51,498.82	0.00	102,838.82	350	293.8252	12,749.51
Millbrook Depot	23,623.00	75,542.24	0.00	0.00	99,165.24	375	264.4406	14,111.19
PCCP Apsley	30,124.00	0.00	40,678.79	0.00	70,802.79	297	238.3932	9,773.85
PCCP Clonsilla	43,282.00	122,899.61	0.00	0.00	166,181.61	5000	33.2363	23,095.58
PCCP Lakefield	66,831.00	56,412.24	0.00	0.00	123,243.24	130	948.0249	11,938.33
PCCP Norwood	0.00	21,106.77	0.00	0.00	21,106.77	167	126.3878	3,754.79
Round About CR28	13,593.00	0.00	0.00	0.00	13,593.00	1	13593	387.03
Sand Dome (Mine Dome)	3,969.00	0.00	0.00	0.00	3,969.00	32	0	113.01
Security Lights	4,021.00	0.00	0.00	0.00	4,021.00	1	3985	114.49
Security Lights	3,985.00	0.00	0.00	0.00	3,985.00	1	4021	113.46
Smith-Centreline Depot	41,905.00	0.00	0.00	0.00	41,905.00	32	1309.5313	1,193.16
Wallace Point Rd Beacon	27.00	0.00	0.00	0.00	27.00	1	27	0.77
<b>Total</b>	<b>1,463,105.00</b>	<b>2,420,199.90</b>	<b>435,971.75</b>	<b>29,692.78</b>	<b>4,348,969.43</b>	<b>15,834.00</b>	<b>191,849.98</b>	<b>575,293.46</b>

2020 - Energy Consumption Summary

Facility	Electricity (ekWh)	Natural Gas (m3)	Propane (ekWh)	Oil (ekWh)	Total Energy (ekWh)	Building Area (m2)	Energy Intensity (ekWh/sqm)	GHG Emissions (kg)
Armour Road	242,264.00	362,885.45	0.00	0.00	605,149.45	4270	141.7212	70,720.59
Bensfort Road Bridge	2,592.00	0.00	0.00	0.00	2,592.00	1	2592	65.96
Buckhorn Bridge Beacon	7,941.00	0.00	0.00	0.00	7,941.00	1	7941	202.08
Buckhorn Depot - PW	30,250.00	0.00	0.00	0.00	30,250.00	337	89.7626	769.80
Causeway Bridge Lights	15,120.00	0.00	0.00	0.00	15,120.00	1	15120	384.77
Chemong Causeway Beacon	3.00	0.00	0.00	0.00	3.00	1	3	0.08
County Court House	484,152.00	710,668.82	0.00	0.00	1,194,820.82	2650	450.8758	138,745.04
CR 1 and Chemong Road (CR18)	6,432.00	0.00	0.00	0.00	6,432.00	1	6432	163.68
CR 10 & CR 21	2,508.00	0.00	0.00	0.00	2,508.00	1	2508	63.82
CR 10 & Sherbrooke Street	1,188.00	0.00	0.00	0.00	1,188.00	1	1188	30.23
CR 18 (Ward) / Willcox	7,380.00	0.00	0.00	0.00	7,380.00	1	7380	187.81
CR 18 and CR 19	912.00	0.00	0.00	0.00	912.00	1	912	23.21
CR 18 and CR 23 4-way stop	912.00	0.00	0.00	0.00	912.00	1	912	23.21
CR 18 and CR 29 Flashers	3,562.00	0.00	0.00	0.00	3,562.00	1	3562	90.65
CR 2 and CR 34	1,056.00	0.00	0.00	0.00	1,056.00	1	1056	26.87
CR 23 and CR 29 Flashers	3,312.00	0.00	0.00	0.00	3,312.00	1	3312	84.28
CR 23 and CR 36	22,824.00	0.00	0.00	0.00	22,824.00	1	22824	580.83
CR 3 Parkhill Rd. W. Lights	2,760.00	0.00	0.00	0.00	2,760.00	1	2760	70.24
Douro Depot	89,657.00	0.00	154,840.94	0.00	244,497.94	925	264.3221	36,220.22
Douro Depot Storage Bldg	26,372.00	0.00	0.00	59,094.55	85,466.55	450	189.9257	15,667.98
Havelock Depot	25,805.00	0.00	128,919.29	0.00	154,724.29	426	363.2026	28,913.71
Janitor's House	10,223.00	35,443.64	0.00	0.00	45,666.64	1	45666.6363	6,565.40
Lakefield Stop Lights	30,892.00	0.00	0.00	0.00	30,892.00	1	30892	786.14
Lakefield Stop Lights	12,437.00	0.00	0.00	0.00	12,437.00	1	12437	316.50
Lakefield Street Lights	8,769.00	0.00	0.00	0.00	8,769.00	1	8769	223.15
Lang Mill #9990	626.00	0.00	0.00	0.00	626.00	170	3.6824	15.93
Lang Pioneer Village #7108	130,409.00	0.00	27,791.78	0.00	158,200.78	200	791.0039	9,410.16
Lang Pioneer Village Barn	36,957.00	0.00	68,126.08	0.00	105,083.08	350	300.2374	15,872.62
Millbrook Depot	24,388.00	77,487.12	0.00	0.00	101,875.12	375	271.667	14,405.19
PCCP Apsley	30,317.00	0.00	48,018.69	0.00	78,335.69	297	263.7565	11,296.43
PCCP Clonsilla	55,122.00	140,977.46	0.00	0.00	196,099.46	5000	39.2199	26,481.91
PCCP Lakefield	60,891.00	83,566.21	0.00	0.00	144,457.21	130	1111.2093	16,415.55
PCCP Norwood	0.00	19,108.74	0.00	0.00	19,108.74	167	114.4236	3,399.35
Round About CR28	17,467.00	0.00	0.00	0.00	17,467.00	1	17467	444.50
Sand Dome (Mine Dome)	4,701.00	0.00	0.00	0.00	4,701.00	32	0	119.63
Security Lights	7,587.00	0.00	0.00	0.00	7,587.00	1	4109	193.07
Security Lights	4,109.00	0.00	0.00	0.00	4,109.00	1	7587	104.57
Smith-Centreline Depot	32,736.00	0.00	0.00	0.00	32,736.00	32	1023	833.07
Wallace Point Rd Beacon	2.00	0.00	0.00	0.00	2.00	1	2	0.05
Weaver Shop	6,774.00	0.00	0.00	0.00	6,774.00	170	39.8471	172.38
<b>Total</b>	<b>1,451,409.00</b>	<b>1,430,137.44</b>	<b>427,696.78</b>	<b>59,094.55</b>	<b>3,368,337.77</b>	<b>16004</b>	<b>210889.4934</b>	<b>400,090.66</b>

2019 - Energy Consumption Summary

Facility	Electricity (ekWh)	Natural Gas (m3)	Propane (ekWh)	Oil (ekWh)	Total Energy (ekWh)	Building Area (m2)	Energy Intensity (ekWh/sqm)	GHG Emissions (kg)
Armour Road	218,369.00	423,580.68	0.00	0.00	641,949.68	4270	150.3395	82,007.19
Bensfort Road Bridge	2,376.00	0.00	0.00	0.00	2,376.00	1	2376	72.40
Buckhorn Bridge Beacon	3,036.00	0.00	0.00	0.00	3,036.00	1	3036	92.52
Buckhorn Depot - PW	40,488.00	0.00	0.00	0.00	40,488.00	337	120.1424	1,233.79
Causeway Bridge Lights	13,860.00	0.00	0.00	0.00	13,860.00	1	13860	422.36
Chemong Causeway Beacon	8.00	0.00	0.00	0.00	8.00	1	8	0.24
County Court House	518,552.00	625,784.77	0.00	0.00	1,144,336.77	2650	431.8252	127,125.73
CR 1 and Chemong Road (CR18)	5,896.00	0.00	0.00	0.00	5,896.00	1	5896	179.67
CR 10 & CR 21	2,299.00	0.00	0.00	0.00	2,299.00	1	2299	70.06
CR 10 & Sherbrooke Street	1,089.00	0.00	0.00	0.00	1,089.00	1	1089	33.19
CR 18 (Ward) / Willcox	7,995.00	0.00	0.00	0.00	7,995.00	1	7995	243.63
CR 18 and CR 19	1,034.00	0.00	0.00	0.00	1,034.00	1	1034	31.51
CR 18 and CR 23 4-way stop	1,186.00	0.00	0.00	0.00	1,186.00	1	1186	36.14
CR 18 and CR 29 Flashers	2,742.00	0.00	0.00	0.00	2,742.00	1	2742	83.56
CR 2 and CR 34	968.00	0.00	0.00	0.00	968.00	1	968	29.50
CR 23 and CR 29 Flashers	2,760.00	0.00	0.00	0.00	2,760.00	1	2760	84.11
CR 23 and CR 36	20,922.00	0.00	0.00	0.00	20,922.00	1	20922	637.56
CR 3 Parkhill Rd. W. Lights	2,760.00	0.00	0.00	0.00	2,760.00	1	2760	84.11
Douro Depot	78,156.00	0.00	206,613.95	0.00	284,769.95	925	307.8594	47,668.09
Douro Depot Storage Bldg	16,376.00	0.00	0.00	78,117.33	94,493.33	450	209.9852	20,323.44
Havelock Depot	24,471.00	0.00	167,109.26	0.00	191,580.26	426	449.7189	37,373.35
Janitor's House	12,333.00	24,943.39	0.00	0.00	37,276.39	1	37276.3926	4,813.13
Lakefield Stop Lights	27,858.00	0.00	0.00	0.00	27,858.00	1	27858	848.92
Lakefield Stop Lights	12,595.00	0.00	0.00	0.00	12,595.00	1	12595	383.81
Lakefield Street Lights	9,367.00	0.00	0.00	0.00	9,367.00	1	9367	285.44
Lang Mill #9990	603.00	0.00	0.00	0.00	603.00	170	3.5471	18.38
Lang Pioneer Village #7108	123,628.00	0.00	31,581.25	0.00	155,209.25	200	776.0463	10,689.42
Lang Pioneer Village Barn	37,019.00	0.00	70,755.51	0.00	107,774.51	350	307.9272	16,636.54
Millbrook Depot	17,297.00	96,882.82	0.00	0.00	114,179.82	375	304.4795	17,762.05
PCCP Apsley	27,148.00	0.00	52,954.14	0.00	80,102.14	297	269.7042	12,433.97
PCCP Clonsilla	45,389.00	125,822.25	0.00	0.00	171,211.25	5000	34.2423	23,766.27
PCCP Lakefield	60,447.00	62,672.00	0.00	0.00	123,119.00	130	947.0692	12,991.03
PCCP Norwood	0.00	20,628.52	0.00	0.00	20,628.52	167	123.524	3,669.71
Round About CR28	12,687.00	0.00	0.00	0.00	12,687.00	1	12687	386.61
Sand Dome (Mine Dome)	3,806.00	0.00	0.00	0.00	3,806.00	32	0	115.98
Security Lights	6,384.00	0.00	0.00	0.00	6,384.00	1	4082	194.54
Security Lights	4,082.00	0.00	0.00	0.00	4,082.00	1	6384	124.39
Smith-Centreline Depot	23,468.00	0.00	0.00	0.00	23,468.00	32	733.375	715.14
Weaver Shop	7,463.00	0.00	2,903.62	0.00	10,366.62	170	60.9801	863.85
<b>Total</b>	<b>1,396,917.00</b>	<b>1,380,314.43</b>	<b>531,917.73</b>	<b>78,117.33</b>	<b>3,387,266.49</b>	<b>16,003.00</b>	<b>184,411.16</b>	<b>424,531.33</b>

2018 - Energy Consumption Summary								
Facility	Electricity (ekWh)	Natural Gas (m3)	Propane (ekWh)	Oil (ekWh)	Total Energy (ekWh)	Building Area (m2)	Energy Intensity (ekWh/sqm)	GHG Emissions (kg)
Armour Road	293,682.00	829,901.85	0.00	0.00	1,123,583.85	4270	263.1344	156,313.00
Bensfort Road Bridge	2,808.00	0.00	0.00	0.00	2,808.00	1	2808	82.97
Buckhorn Bridge Beacon	3,588.00	0.00	0.00	0.00	3,588.00	1	3588	106.02
Buckhorn Depot - PW	56,738.00	0.00	0.00	0.00	56,738.00	337	168.362	1,676.49
Causeway Bridge Lights	16,380.00	0.00	0.00	0.00	16,380.00	1	16380	484.00
Chemong Causeway Beacon	9.00	0.00	0.00	0.00	9.00	1	9	0.27
County Court House	634,308.00	992,591.86	0.00	0.00	1,626,899.86	2650	613.9245	195,319.53
CR 1 and Chemong Road (CR18)	6,968.00	0.00	0.00	0.00	6,968.00	1	6968	205.89
CR 10 & CR 21	2,717.00	0.00	0.00	0.00	2,717.00	1	2717	80.28
CR 10 & Sherbrooke Street	1,287.00	0.00	0.00	0.00	1,287.00	1	1287	38.03
CR 18 (Ward) / Willcox	7,380.00	0.00	0.00	0.00	7,380.00	1	7380	218.06
CR 18 and CR 19	988.00	0.00	0.00	0.00	988.00	1	988	29.19
CR 18 and CR 23 4-way stop	988.00	0.00	0.00	0.00	988.00	1	988	29.19
CR 18 and CR 29 Flashers	3,288.00	0.00	0.00	0.00	3,288.00	1	3288	97.15
CR 2 and CR 34	1,144.00	0.00	0.00	0.00	1,144.00	1	1144	33.80
CR 23 and CR 29 Flashers	3,588.00	0.00	0.00	0.00	3,588.00	1	3588	106.02
CR 23 and CR 36	24,726.00	0.00	0.00	0.00	24,726.00	1	24726	730.60
CR 3 Parkhill Rd. W. Lights	2,760.00	0.00	0.00	0.00	2,760.00	1	2760	81.55
Douro Depot	110,274.00	0.00	144,386.51	0.00	254,660.51	925	275.3087	34,905.56
Douro Depot Storage Bldg	38,568.00	0.00	0.00	62,047.66	100,615.66	450	223.5904	16,885.90
Havelock Depot	32,426.00	0.00	134,009.41	0.00	166,435.41	426	390.6934	30,330.82
Janitor's House	17,637.00	45,189.31	0.00	0.00	62,826.31	1	62826.3078	8,560.08
Lakefield Stop Lights	31,706.00	0.00	0.00	0.00	31,706.00	1	31706	936.85
Lakefield Stop Lights	12,606.00	0.00	0.00	0.00	12,606.00	1	12606	372.48
Lakefield Street Lights	8,025.00	0.00	0.00	0.00	8,025.00	1	8025	237.12
Lang Mill #9990	600.00	0.00	0.00	0.00	600.00	170	3.5294	17.73
Lang Pioneer Village #7108	149,056.00	0.00	25,169.39	0.00	174,225.39	200	871.1269	9,921.03
Lang Pioneer Village Barn	11,639.00	0.00	51,569.12	0.00	63,208.12	350	180.5946	11,647.03
Millbrook Depot	23,420.00	79,272.59	0.00	0.00	102,692.59	375	273.8469	14,794.20
PCCP Apsley	31,442.00	0.00	50,809.82	0.00	82,251.82	297	276.9422	12,065.74
PCCP Clonsilla	51,778.00	143,528.13	0.00	0.00	195,306.13	5000	39.0612	27,062.85
PCCP Lakefield	77,477.00	88,858.84	0.00	0.00	166,335.84	130	1279.5065	18,096.82
PCCP Norwood	0.00	38,653.22	0.00	0.00	38,653.22	167	231.4564	6,876.21
Round About CR28	13,493.00	0.00	0.00	0.00	13,493.00	1	13493	398.69
Sand Dome (Mine Dome)	6,763.00	0.00	0.00	0.00	6,763.00	32	0	199.83
Security Lights	8,564.00	0.00	0.00	0.00	8,564.00	1	4136	253.05
Security Lights	4,136.00	0.00	0.00	0.00	4,136.00	1	8564	122.21
Smith-Centreline Depot	40,578.00	0.00	0.00	0.00	40,578.00	32	1268.0625	1,199.00
Weaver Shop	76,695.00	0.00	0.00	0.00	76,695.00	170.00	451.1471	2,266.18
<b>Total</b>	<b>1,810,230.00</b>	<b>2,217,995.80</b>	<b>405,944.25</b>	<b>62,047.66</b>	<b>4,496,217.71</b>	<b>16,003.00</b>	<b>226,785.59</b>	<b>552,781.42</b>



2017 - Energy Consumption Summary								
Facility	Electricity (ekWh)	Natural Gas (m3)	Propane (ekWh)	Oil (ekWh)	Total Energy (ekWh)	Building Area (m2)	Energy Intensity (ekWh/sqm)	GHG Emissions (kg)
Armour Road	260,488.00	469,333.26	0.00	0.00	729,821.26	4270	170.9183	87,997.90
Bensfort Road Bridge	2,808.00	0.00	0.00	0.00	2,808.00	1	2808	48.57
Buckhorn Bridge Beacon	3,588.00	0.00	0.00	0.00	3,588.00	1	3588	62.07
Buckhorn Depot - PW	49,919.00	0.00	0.00	0.00	49,919.00	337	148.1276	863.50
Causeway Bridge Lights	16,280.00	0.00	0.00	0.00	16,280.00	1	16280	281.61
County Court House	555,727.00	721,275.34	0.00	0.00	1,277,002.34	2650	481.8877	137,924.15
CR 1 and Chemong Road (CR18)	6,968.00	0.00	0.00	0.00	6,968.00	1	6968	120.53
CR 10 & CR 21	2,717.00	0.00	0.00	0.00	2,717.00	1	2717	47.00
CR 10 & Sherbrooke Street	1,287.00	0.00	0.00	0.00	1,287.00	1	1287	22.26
CR 18 (Ward) / Willcox	7,995.00	0.00	0.00	0.00	7,995.00	1	7995	138.30
CR 18 and CR 19	988.00	0.00	0.00	0.00	988.00	1	988	17.09
CR 18 and CR 23 4-way stop	988.00	0.00	0.00	0.00	988.00	1	988	17.09
CR 18 and CR 29 Flashers	3,562.00	0.00	0.00	0.00	3,562.00	1	3562	61.62
CR 2 and CR 34	1,144.00	0.00	0.00	0.00	1,144.00	1	1144	19.79
CR 23 and CR 29 Flashers	3,591.00	0.00	0.00	0.00	3,591.00	1	3591	62.12
CR 23 and CR 36	24,726.00	0.00	0.00	0.00	24,726.00	1	24726	427.71
CR 3 Parkhill Rd. W. Lights	920.00	0.00	0.00	0.00	920.00	1	920	15.91
Douro Depot	119,421.00	0.00	131,028.45	0.00	250,449.45	925	270.7562	30,785.06
Douro Depot Storage Bldg	26,904.00	0.00	0.00	53,996.66	80,900.66	450	179.7793	14,168.52
Havelock Depot	26,327.00	0.00	121,607.51	0.00	147,934.51	426	347.2641	27,109.80
Janitor's House	14,681.00	35,167.31	0.00	0.00	49,848.31	1	49848.3141	6,510.04
Lakefield Stop Lights	28,348.00	0.00	0.00	0.00	28,348.00	1	28348	490.36
Lakefield Stop Lights	14,629.00	0.00	0.00	0.00	14,629.00	1	14629	253.05
Lakefield Street Lights	8,731.00	0.00	0.00	0.00	8,731.00	1	8731	151.03
Lang Mill #9990	859.00	0.00	0.00	0.00	859.00	170	5.0529	14.86
Lang Pioneer Village #7108	107,402.00	0.00	28,058.95	0.00	135,460.95	200	677.3047	8,007.91
Millbrook Depot	22,899.00	61,630.48	0.00	0.00	84,529.48	375	225.4119	11,359.85
PCCP Apsley	29,556.00	0.00	38,907.09	0.00	68,463.09	297	230.5155	9,039.07
PCCP Clonsilla	40,471.00	117,543.21	0.00	0.00	158,014.21	5000	31.6028	21,610.40
PCCP Lakefield	67,543.00	91,994.04	0.00	0.00	159,537.04	130	1227.208	17,533.63
PCCP Norwood	0.00	23,115.41	0.00	0.00	23,115.41	167	138.4157	4,112.11
Round About CR28	10,969.00	0.00	0.00	0.00	10,969.00	1	10969	189.74
Sand Dome (Mine Dome)	6,613.00	0.00	0.00	0.00	6,613.00	32	0	114.39
Security Lights	7,663.00	0.00	0.00	0.00	7,663.00	1	4498	132.55
Security Lights	4,498.00	0.00	0.00	0.00	4,498.00	1	7663	77.81
Smith-Centreline Depot	19,611.00	0.00	0.00	0.00	19,611.00	32	612.8438	339.23
Weaver Shop	7,252.00	0.00	0.00	0.00	7,252.00	170.00	42.6588	125.45
<b>Total</b>	<b>1,508,073.00</b>	<b>1,520,059.05</b>	<b>319,602.00</b>	<b>53,996.66</b>	<b>3,401,730.71</b>	<b>15,652.00</b>	<b>207,038.06</b>	<b>380,252.08</b>

2016 - Energy Consumption Summary								
Facility	Electricity (ekWh)	Natural Gas (m3)	Propane (ekWh)	Oil (ekWh)	Total Energy (ekWh)	Building Area (m2)	Energy Intensity (ekWh/sqm)	GHG Emissions (kg)
Armour Road	274,157.00	439,171.63	0.00	0.00	713,328.63	4270	167.0559	87,872.11
Bensfort Road Bridge	2,592.00	0.00	0.00	0.00	2,592.00	1	2592	92.14
Buckhorn Bridge Beacon	3,312.00	0.00	0.00	0.00	3,312.00	1	3312	117.73
Buckhorn Depot - PW	44,656.00	0.00	0.00	0.00	44,656.00	337	132.5104	1,587.43
Causeway Bridge Lights	15,120.00	0.00	0.00	0.00	15,120.00	1	15120	537.49
Chemong Causeway Beacon	1.00	0.00	0.00	0.00	1.00	1	1	0.04
County Court House	608,381.00	578,831.25	0.00	0.00	1,187,212.25	2650	448.0046	124,597.84
CR 1 and Chemong Road (CR18)	6,432.00	0.00	0.00	0.00	6,432.00	1	6432	228.64
CR 10 & CR 21	2,508.00	0.00	0.00	0.00	2,508.00	1	2508	89.15
CR 10 & Sherbrooke Street	1,286.00	0.00	0.00	0.00	1,286.00	1	1286	45.71
CR 18 (Ward) / Willcox	7,380.00	0.00	0.00	0.00	7,380.00	1	7380	262.34
CR 18 and CR 19	912.00	0.00	0.00	0.00	912.00	1	912	32.42
CR 18 and CR 23 4-way stop	912.00	0.00	0.00	0.00	912.00	1	912	32.42
CR 18 and CR 29 Flashers	3,288.00	0.00	0.00	0.00	3,288.00	1	3288	116.88
CR 2 and CR 34	1,056.00	0.00	0.00	0.00	1,056.00	1	1056	37.54
CR 23 and CR 29 Flashers	3,312.00	0.00	0.00	0.00	3,312.00	1	3312	117.73
CR 23 and CR 36	22,824.00	0.00	0.00	0.00	22,824.00	1	22824	811.35
Douro Depot	106,844.00	0.00	151,065.54	0.00	257,909.54	925	278.8211	36,909.21
Douro Depot Storage Bldg	27,283.00	0.00	0.00	55,365.44	82,648.44	450	183.6632	15,020.35
Havelock Depot	22,705.00	0.00	155,965.83	0.00	178,670.83	426	419.4151	34,992.31
Janitor's House	6,901.00	0.00	0.00	0.00	6,901.00	1	2.4761	245.32
Jail	14,759.00	35,305.48	0.00	0.00	50,064.48	2787	50064.4752	6,805.32
Lakefield Stop Lights	33,548.00	0.00	0.00	0.00	33,548.00	1	33548	1,192.56
Lakefield Stop Lights	13,477.00	0.00	0.00	0.00	13,477.00	1	13477	479.08
Lakefield Street Lights	8,717.00	0.00	0.00	0.00	8,717.00	1	8717	309.87
Lang Mill #9990	144.00	0.00	0.00	0.00	144.00	170	0.8471	5.12
Lang Pioneer Village #7108	129,127.00	0.00	29,844.71	0.00	158,971.71	200	794.8585	11,131.68
Millbrook Depot	26,125.00	80,197.21	0.00	0.00	106,322.21	375	283.5259	15,195.36
PCCP Apsley	30,005.00	0.00	33,845.09	0.00	63,850.09	297	214.9835	8,484.91
PCCP Clonsilla	6,404.00	18,301.03	0.00	0.00	24,705.03	5000	4.941	3,483.31
PCCP Lakefield	66,656.00	72,800.27	0.00	0.00	139,456.27	130	1072.7406	15,320.28
PCCP Norwood	0.00	16,876.91	0.00	0.00	16,876.91	167	101.0593	3,002.32
Round About CR28	12,134.00	0.00	0.00	0.00	12,134.00	1	12134	431.34
Sand Dome (Mine Dome)	8,061.00	0.00	0.00	0.00	8,061.00	32	0	286.55
Security Lights	9,475.00	0.00	0.00	0.00	9,475.00	1	3665	336.82
Security Lights	3,665.00	0.00	0.00	0.00	3,665.00	1	9475	130.28
Smith-Centreline Depot	21,534.00	0.00	0.00	0.00	21,534.00	32	672.9375	765.49
Weaver Shop	3,113.00	0.00	0.00	0.00	3,113.00	170.00	18.3118	110.66
<b>Total</b>	<b>1,548,806.00</b>	<b>1,241,483.78</b>	<b>370,721.17</b>	<b>55,365.44</b>	<b>3,216,376.39</b>	<b>18,439.00</b>	<b>206,811.63</b>	<b>371,217.10</b>

2015 - Energy Consumption Summary								
Facility	Electricity (ekWh)	Natural Gas (m3)	Propane (ekWh)	Oil (ekWh)	Total Energy (ekWh)	Building Area (m2)	Energy Intensity (ekWh/sqm)	GHG Emissions (kg)
Armour Road	287,070.00	507,508.24	0.00	0.00	794,578.24	4270	186.0839	101,923.23
Bensfort Road Bridge	2,592.00	0.00	0.00	0.00	2,592.00	1	2592	105.10
Buckhorn Bridge Beacon	3,312.00	0.00	0.00	0.00	3,312.00	1	3312	134.29
Buckhorn Depot - PW	43,320.00	0.00	0.00	0.00	43,320.00	337	128.546	1,756.54
Causeway Bridge Lights	15,120.00	0.00	0.00	0.00	15,120.00	1	15120	613.09
County Court House	670,176.00	834,482.42	0.00	0.00	1,504,658.42	2650	567.7956	175,624.44
CR 1 and Chemong Road (CR18)	6,432.00	0.00	0.00	0.00	6,432.00	1	6432	260.80
CR 10 & CR 21	2,508.00	0.00	0.00	0.00	2,508.00	1	2508	101.69
CR 10 & Sherbrooke Street	1,089.00	0.00	0.00	0.00	1,089.00	1	1089	44.16
CR 18 (Ward) / Willcox	7,380.00	0.00	0.00	0.00	7,380.00	1	7380	299.24
CR 18 and CR 19	912.00	0.00	0.00	0.00	912.00	1	912	36.98
CR 18 and CR 23 4-way stop	846.00	0.00	0.00	0.00	846.00	1	846	34.30
CR 18 and CR 29 Flashers	3,288.00	0.00	0.00	0.00	3,288.00	1	3288	133.32
CR 2 and CR 34	1,056.00	0.00	0.00	0.00	1,056.00	1	1056	42.82
CR 23 and CR 29 Flashers	3,112.00	0.00	0.00	0.00	3,112.00	1	3112	126.19
CR 23 and CR 36	22,824.00	0.00	0.00	0.00	22,824.00	1	22824	925.47
Douro Depot	82,478.00	0.00	149,251.65	0.00	231,729.65	925	250.5185	36,057.87
Douro Depot Storage Bldg	14,230.00	0.00	0.00	57,327.00	71,557.00	450	159.0155	15,125.29
Havelock Depot	28,022.00	0.00	138,558.18	0.00	166,580.18	426	391.0333	31,505.95
Janitor's House	29,883.00	8,310.92	0.00	0.00	38,193.92	1	62634.1967	2,690.17
Jail	17,870.00	44,764.20	0.00	0.00	62,634.20	2787	13.7043	8,687.91
Lakefield Stop Lights	27,980.00	0.00	0.00	0.00	27,980.00	1	27980	1,134.53
Lakefield Stop Lights	13,529.00	0.00	0.00	0.00	13,529.00	1	13529	548.57
Lakefield Street Lights	8,722.00	0.00	0.00	0.00	8,722.00	1	8722	353.66
Lang Pioneer Village #7108	131,625.00	0.00	23,882.80	0.00	155,507.80	200	777.539	10,571.85
Millbrook Depot	23,543.00	0.00	108,966.57	0.00	132,509.57	375	353.3589	24,838.33
PCCP Apsley	34,588.00	0.00	49,087.34	0.00	83,675.34	297	281.7351	12,161.62
PCCP Clonsilla	0.00	0.00	0.00	0.00	0.00	5000		0.00
PCCP Lakefield	66,695.00	69,154.94	0.00	0.00	135,849.94	130	1044.9996	15,006.66
PCCP Norwood	0.00	18,991.84	0.00	0.00	18,991.84	167	113.7236	3,378.55
Round About CR28	11,445.00	0.00	0.00	0.00	11,445.00	1	11445	464.07
Sand Dome (Mine Dome)	5,808.00	0.00	0.00	0.00	5,808.00	32	0	235.50
Security Lights	6,544.00	0.00	0.00	0.00	6,544.00	1	586	265.35
Security Lights	586.00	0.00	0.00	0.00	586.00	1	4079	23.76
Security Lights	4,079.00	0.00	0.00	0.00	4,079.00		6544	165.40
Smith-Centreline Depot	18,200.00	0.00	0.00	0.00	18,200.00	32	568.75	737.97
Wallace Point Beacon	2.00	0.00	0.00	0.00	2.00		2	0.08
Weaver Shop	2,513.00	0.00	0.00	0.00	2,513.00	170.00	14.7824	101.90
<b>Total</b>	<b>1,599,379.00</b>	<b>1,483,212.56</b>	<b>469,746.54</b>	<b>57,327.00</b>	<b>3,609,665.10</b>	<b>18,268.00</b>	<b>210,843.78</b>	<b>446,216.65</b>



2014 - Energy Consumption Summary								
Facility	Electricity (ekWh)	Natural Gas (m3)	Propane (ekWh)	Oil (ekWh)	Total Energy (ekWh)	Building Area (m2)	Energy Intensity (ekWh/sqm)	GHG Emissions (kg)
Armour Road	260,869.00	452,552.00	0.00	0.00	713,421.00	4270	167.0775	90,944.31
Bensfort Road Bridge	2,376.00	0.00	0.00	0.00	2,376.00	1	2376	95.07
Buckhorn Bridge Beacon	3,312.00	0.00	0.00	0.00	3,312.00	1	3312	132.52
Buckhorn Depot - PW	40,680.00	0.00	0.00	0.00	40,680.00	337	120.7122	1,627.65
Causeway Bridge Lights	14,076.00	0.00	0.00	0.00	14,076.00	1	14076	563.19
Chemong Causeway Beacon	414.00	0.00	0.00	0.00	414.00	1	414	16.56
County Court House	669,834.00	926,380.81	0.00	0.00	1,596,214.81	2650	602.3452	191,599.12
CR 1 and Chemong Road (CR18)	6,432.00	0.00	0.00	0.00	6,432.00	1	6432	257.35
CR 10 & CR 21	2,508.00	0.00	0.00	0.00	2,508.00	1	2508	100.35
CR 10 & Sherbrooke Street	1,188.00	0.00	0.00	0.00	1,188.00	1	1188	47.53
CR 18 (Ward) / Willcox	7,380.00	0.00	0.00	0.00	7,380.00	1	7380	295.28
CR 18 and CR 19	912.00	0.00	0.00	0.00	912.00	1	912	36.49
CR 18 and CR 23 4-way stop	912.00	0.00	0.00	0.00	912.00	1	912	36.49
CR 18 and CR 29 Flashers	3,288.00	0.00	0.00	0.00	3,288.00	1	3288	131.56
CR 2 and CR 34	1,056.00	0.00	0.00	0.00	1,056.00	1	1056	42.25
CR 23 and CR 29 Flashers	3,312.00	0.00	0.00	0.00	3,312.00	1	3312	132.52
CR 23 and CR 36	22,632.00	0.00	0.00	0.00	22,632.00	1	22632	905.53
Douro Depot	112,340.00	0.00	164,374.38	0.00	276,714.38	925	299.1507	40,523.04
Douro Depot Storage Bldg	16,175.00	0.00	0.00	74,571.44	90,746.44	450	201.6588	19,571.72
Havelock Depot	29,081.00	0.00	157,596.92	0.00	186,677.92	426	438.2111	35,706.26
Jail	20,396.00	50,864.54	0.00	0.00	71,260.54	1	25.5689	9,864.61
Janitors House	16,868.00	39,460.94	0.00	0.00	56,328.94	2787	56328.936	7,694.80
Lakefield Stop Lights	30,970.00	0.00	0.00	0.00	30,970.00	1	30970	1,239.14
Lakefield Stop Lights	14,686.00	0.00	0.00	0.00	14,686.00	1	14686	587.60
Lakefield Street Lights	8,732.00	0.00	0.00	0.00	8,732.00	1	8732	349.38
Lang Pioneer Village #7108	136,245.00	0.00	30,828.98	0.00	167,073.98	200	835.3699	12,208.51
Millbrook Depot	32,054.00	0.00	54,029.82	66,434.22	152,518.03	375	406.7148	29,984.48
PCCP Apsley	34,752.00	0.00	46,225.90	0.00	80,977.90	297	272.6529	11,522.43
PCCP Lakefield	62,818.00	74,373.18	0.00	0.00	137,191.18	130	1055.3168	15,744.02
PCCP Norwood	0.00	21,329.95	0.00	0.00	21,329.95	167	127.7242	3,794.49
Round About CR28	3,465.00	0.00	0.00	0.00	3,465.00	1	3465	138.64
Sand Dome (Mine Dome)	8,015.00	0.00	0.00	0.00	8,015.00	32	0	320.69
Security Lights	3,690.00	0.00	0.00	0.00	3,690.00	1	5310	147.64
Security Lights	5,310.00	0.00	0.00	0.00	5,310.00	1	3681	212.46
Security Lights	3,681.00	0.00	0.00	0.00	3,681.00	1	3690	147.28
Smith-Centreline Depot	17,280.00	0.00	0.00	0.00	17,280.00	32	540	691.39
Wallace Point Beacon	141.00	0.00	0.00	0.00	141.00	1	141	5.64
Weaver Shop	2,597.00	0.00	0.00	0.00	2,597.00	170.00	15.2765	103.91
<b>Total</b>	<b>1,600,477.00</b>	<b>1,564,961.42</b>	<b>453,056.00</b>	<b>141,005.66</b>	<b>3,759,500.07</b>	<b>13,271.00</b>	<b>201,909.72</b>	<b>477,521.90</b>

2013 - Energy Consumption Summary								
Facility	Electricity (ekWh)	Natural Gas (m3)	Propane (ekWh)	Oil (ekWh)	Total Energy (ekWh)	Building Area (m2)	Energy Intensity (ekWh/sqm)	GHG Emissions (kg)
Armour Road	307,893.00	549,424.19	0.00	0.00	857,317.19	4270	200.7769	121,143.31
Bensfort Road Bridge	2,705.00	0.00	0.00	0.00	2,705.00	1	2705	205.61
Buckhorn Bridge Beacon	3,453.00	0.00	0.00	0.00	3,453.00	1	3453	262.47
Buckhorn Depot - PW	39,969.00	0.00	0.00	0.00	39,969.00	337	118.6024	3,038.12
Causeway Bridge Lights	15,773.00	0.00	0.00	0.00	15,773.00	1	15773	1,198.94
Chemong Causeway Beacon	510.00	0.00	0.00	0.00	510.00	1	510	38.77
County Court House	600,802.00	637,804.78	0.00	0.00	1,238,606.78	2650	467.3988	159,130.36
CR 1 and Chemong Road (CR18)	6,708.00	0.00	0.00	0.00	6,708.00	1	6708	509.89
CR 10 & CR 21	2,615.00	0.00	0.00	0.00	2,615.00	1	2615	198.77
CR 10 & Sherbrooke Street	1,239.00	0.00	0.00	0.00	1,239.00	1	1239	94.18
CR 18 (Ward) / Willcox	7,701.00	0.00	0.00	0.00	7,701.00	1	7701	585.37
CR 18 and CR 19	951.00	0.00	0.00	0.00	951.00	1	951	72.29
CR 18 and CR 23 4-way stop	951.00	0.00	0.00	0.00	951.00	1	951	72.29
CR 18 and CR 29 Flashers	3,429.00	0.00	0.00	0.00	3,429.00	1	3429	260.65
CR 2 and CR 34	1,101.00	0.00	0.00	0.00	1,101.00	1	1101	83.69
CR 23 and CR 29 Flashers	3,453.00	0.00	0.00	0.00	3,453.00	1	3453	262.47
CR 23 and CR 36	22,510.00	0.00	0.00	0.00	22,510.00	1	22510	1,711.03
Douro Depot	95,905.00	0.00	138,972.98	0.00	234,877.98	925	253.9221	37,750.56
Douro Depot Storage Bldg	13,339.00	0.00	0.00	49,922.66	63,261.66	450	140.5815	13,683.17
Havelock Depot	21,756.00	0.00	162,061.32	0.00	183,817.32	426	431.4961	37,174.94
Jail	28,532.00	178,514.77	0.00	0.00	207,046.77	1	74.2902	33,925.64
Janitors House	15,740.00	41,852.19	0.00	0.00	57,592.19	2787	57592.1858	8,641.72
Lakefield Stop Lights	30,650.00	0.00	0.00	0.00	30,650.00	1	30650	2,329.77
Lakefield Stop Lights	1,004.00	0.00	0.00	0.00	1,004.00	1	1004	76.32
Lakefield Street Lights	8,697.00	0.00	0.00	0.00	8,697.00	1	8697	661.08
Lang Pioneer Village #7108	95,918.00	0.00	28,677.63	0.00	124,595.63	200	622.9782	13,576.59
Millbrook Depot	26,353.00	0.00	0.00	93,260.10	119,613.10	375	318.9683	25,670.45
PCCP Apsley	30,845.00	0.00	45,262.71	0.00	76,107.71	297	256.2549	12,265.45
PCCP Lakefield	69,394.00	59,600.57	0.00	0.00	128,994.57	130	992.2659	15,877.41
PCCP Norwood	139.00	14,411.27	0.00	0.00	14,550.27	167	87.1273	2,574.26
Sand Dome (Mine Dome)	7,749.00	0.00	0.00	0.00	7,749.00	32	0	589.02
Security Lights	9,540.00	0.00	0.00	0.00	9,540.00	1	9540	725.15
Security Lights	4,090.00	0.00	0.00	0.00	4,090.00	1	4090	310.89
Smith-Centreline Depot	21,080.00	0.00	0.00	0.00	21,080.00	32	658.75	1,602.33
Wallace Point Beacon	321.00	0.00	0.00	0.00	321.00	1	321	24.40
Weaver Shop	1,701.00	0.00	0.00	0.00	1,701.00	170.00	10.0059	129.30
<b>Total</b>	<b>1,504,516.00</b>	<b>1,481,607.77</b>	<b>374,974.64</b>	<b>143,182.76</b>	<b>3,504,281.17</b>	<b>13,269.00</b>	<b>189,626.60</b>	<b>496,456.66</b>

2012 - Energy Consumption Summary								
Facility	Electricity (ekWh)	Natural Gas (m3)	Propane (ekWh)	Oil (ekWh)	Total Energy (ekWh)	Building Area (m2)	Energy Intensity (ekWh/sqm)	GHG Emissions (kg)
Armour Road	292,368.00	437,790.02	0.00	0.00	730,158.02	4270	170.9972	0.00
Bensfort Road Bridge	2,832.00	0.00	0.00	0.00	2,832.00	1	2832	0.00
Buckhorn Bridge Beacon	301.00	0.00	0.00	0.00	301.00	1	301	0.00
Buckhorn Depot - PW	56,400.00	0.00	0.00	0.00	56,400.00	337	167.3591	0.00
Causeway Bridge Lights	15,437.00	0.00	0.00	0.00	15,437.00	1	15437	0.00
County Court House	615,859.00	785,849.71	0.00	0.00	1,401,708.71	2650	528.9467	0.00
CR 1 and Chemong Road (CR18)	7,020.00	0.00	0.00	0.00	7,020.00	1	7020	0.00
CR 10 & CR 21	2,736.00	0.00	0.00	0.00	2,736.00	1	2736	0.00
CR 10 & Sherbrooke Street	1,296.00	0.00	0.00	0.00	1,296.00	1	1296	0.00
CR 18 (Ward) / Willcox	8,823.00	0.00	0.00	0.00	8,823.00	1	8823	0.00
CR 18 and CR 19	913.00	0.00	0.00	0.00	913.00	1	913	0.00
CR 18 and CR 23 4-way stop	996.00	0.00	0.00	0.00	996.00	1	996	0.00
CR 18 and CR 29 Flashers	3,588.00	0.00	0.00	0.00	3,588.00	1	3588	0.00
CR 2 and CR 34	1,152.00	0.00	0.00	0.00	1,152.00	1	1152	0.00
CR 23 and CR 29 Flashers	3,612.00	0.00	0.00	0.00	3,612.00	1	3612	0.00
CR 23 and CR 36	24,291.00	0.00	0.00	0.00	24,291.00	1	24291	0.00
Douro Depot	95,245.00	0.00	37,486.92	55,742.66	188,474.58	925	203.7563	0.00
Douro Depot Storage Bldg	12,986.00	0.00	0.00	11,187.33	24,173.33	450	53.7185	0.00
Havelock Depot	24,361.00	0.00	125,762.57	0.00	150,123.57	426	352.4027	0.00
Jail	30,862.00	110,422.60	0.00	0.00	141,284.60	2787	50.6942	0.00
Janitors House	15,178.00	38,908.29	0.00	0.00	54,086.29	1	54086.2916	0.00
Lakefield Stop Lights	29,410.00	0.00	0.00	0.00	29,410.00	1	29410	0.00
Lakefield Street Lights	8,337.00	0.00	0.00	0.00	8,337.00	1	8337	0.00
Lang Pioneer Village #7108	85,197.00	0.00	23,278.17	0.00	108,475.17	200	542.3758	0.00
Millbrook Depot	26,689.00	0.00	0.00	63,901.44	90,590.44	375	241.5745	0.00
PCCP Apsley	38,177.00	0.00	35,778.49	0.00	73,955.49	297	249.0084	0.00
PCCP Lakefield	57,606.00	72,438.93	0.00	0.00	130,044.93	130	1000.3456	0.00
PCCP Norwood	0.00	13,826.74	0.00	0.00	13,826.74	167	82.7948	0.00
Sand Dome (Mine Dome)	7,486.00	0.00	0.00	0.00	7,486.00	1	0	0.00
Security Lights	9,149.00	0.00	0.00	0.00	9,149.00	1	9149	0.00
Security Lights	3,945.00	0.00	0.00	0.00	3,945.00	1	3945	0.00
Smith-Centreline Depot	15,176.00	0.00	0.00	0.00	15,176.00	32	474.25	0.00
Weaver Shop	1,181.00	0.00	0.00	0.00	1,181.00	170	6.9471	0.00
<b>Total</b>	<b>1,498,609.00</b>	<b>1,459,236.29</b>	<b>222,306.15</b>	<b>130,831.43</b>	<b>3,310,982.87</b>	<b>13,235.00</b>	<b>182,049.46</b>	<b>0.00</b>

2011 - Energy Consumption Summary								
Facility	Electricity (ekWh)	Natural Gas (m3)	Propane (ekWh)	Oil (ekWh)	Total Energy (ekWh)	Building Area (m2)	Energy Intensity (ekWh/sqm)	GHG Emissions (kg)
Armour Road	277,672.00	422,475.39	0.00	0.00	700,147.39	4270	163.9689	0.00
Bensfort Road Bridge	2,596.00	0.00	0.00	0.00	2,596.00	1	2596	0.00
Buckhorn Depot - PW	49,020.00	0.00	0.00	0.00	49,020.00	337	145.4599	0.00
Causeway Bridge Lights	15,124.00	0.00	0.00	0.00	15,124.00	1	15124	0.00
County Court House	604,440.00	823,259.49	0.00	0.00	1,427,699.49	2650	538.7545	0.00
CR 1 and Chemong Road (CR18)	6,149.00	0.00	0.00	0.00	6,149.00	1	6149	0.00
CR 10 & CR 21	2,508.00	0.00	0.00	0.00	2,508.00	1	2508	0.00
CR 10 & Sherbrooke Street	1,188.00	0.00	0.00	0.00	1,188.00	1	1188	0.00
CR 18 and CR 19	913.00	0.00	0.00	0.00	913.00	1	913	0.00
CR 18 and CR 23 4-way stop	913.00	0.00	0.00	0.00	913.00	1	913	0.00
CR 18 and CR 29 Flashers	3,289.00	0.00	0.00	0.00	3,289.00	1	3289	0.00
CR 2 and CR 34	1,056.00	0.00	0.00	0.00	1,056.00	1	1056	0.00
CR 23 and CR 29 Flashers	3,311.00	0.00	0.00	0.00	3,311.00	1	3311	0.00
CR 23 and CR 36	22,275.00	0.00	0.00	0.00	22,275.00	1	22275	0.00
Douro Depot	112,996.00	0.00	0.00	0.00	112,996.00	925	122.1578	0.00
Douro Depot Storage Bldg	14,001.00	0.00	0.00	0.00	14,001.00	450	31.1133	0.00
Havelock Depot	24,487.00	0.00	144,393.54	0.00	168,880.54	426	396.4332	0.00
Jail	21,920.00	95,363.04	0.00	0.00	117,283.04	2787	42.0822	0.00
Janitors House	16,386.00	13,571.67	0.00	0.00	29,957.67	1	29957.6712	0.00
Lakefield Stop Lights	29,490.00	0.00	0.00	0.00	29,490.00	1	29490	0.00
Lakefield Street Lights	8,283.00	0.00	0.00	0.00	8,283.00	1	8283	0.00
Lang Pioneer Village #7108	92,207.00	0.00	0.00	0.00	92,207.00	200	461.035	0.00
Millbrook Depot	39,069.00	0.00	0.00	0.00	39,069.00	375	104.184	0.00
PCCP Apsley	32,791.00	0.00	102,336.76	0.00	135,127.76	297	454.9756	0.00
PCCP Lakefield	60,488.00	69,665.08	0.00	0.00	130,153.08	130	1001.1775	0.00
PCCP Norwood	0.00	17,588.97	0.00	0.00	17,588.97	167	105.3232	0.00
Sand Dome (Mine Dome)	7,272.00	0.00	0.00	0.00	7,272.00	1	0	0.00
Security Lights	8,034.00	0.00	0.00	0.00	8,034.00	1	8034	0.00
Security Lights	3,904.00	0.00	0.00	0.00	3,904.00	1	3904	0.00
Smith-Centreline Depot	15,360.00	0.00	0.00	0.00	15,360.00	32	480	0.00
Weaver Shop	10,898.00	0.00	17,604.51	0.00	28,502.51	170	167.6618	0.00
<b>Total</b>	<b>1,488,040.00</b>	<b>1,441,923.64</b>	<b>264,334.81</b>	<b>0.00</b>	<b>3,194,298.45</b>	<b>13,233.00</b>	<b>143,205.00</b>	<b>0.00</b>