

2021-2025

THE MUNICIPALITY OF CENTRAL ELGIN

# ENERGY CONSERVATION DEMAND MANAGEMENT PLAN





# COMMITMENT

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On October 28, 2019, the Council of the Corporation of the Municipality of Central Elgin passed the following resolution:

**THAT** the Corporation of the Municipality of Central Elgin officially declare a climate emergency for the purposes of joining a national and international movement and to provide a lens through which all policies and opportunities can be viewed;

**AND THAT** staff and the Environmental Advisory Committee be directed to identify target areas in municipal policy through which specific changes can have the greatest impact to reduce our carbon footprint and therefore, our local impact on climate change.

The 2019 - 2022 Strategic Plan for the Municipality of Central Elgin sets the direction for the future. The Council of the Corporation of the Municipality of Central Elgin included strategic actions in the 2019-2022 Strategic Plan as follows:

- Conservation & Appreciation of the Natural Environment
  - Continue to explore green energy options
  - Monitor the financial advantages of green energy options, including funding opportunities, life-cycle costing, and return-on-investment business cases
  - Continue to explore greener options for municipal operations and facilities
  - Welcome creative green energy proposals from the private sector

The Municipality of Central Elgin Energy Conservation & Demand Management Plan is designed to:

- Assist the Municipality to understand its energy use and greenhouse gas emissions
- Demonstrate the progressive approach of the Municipality of Central Elgin regarding renewable energy production, energy conservation and greenhouse gas emission reductions
- Improve greenhouse gas emission awareness through the illustration and description of existing production and consumption patterns
- Reduce the environmental impact of the Municipality's operations
- Promote a culture of energy conservation within the Municipality and the community.



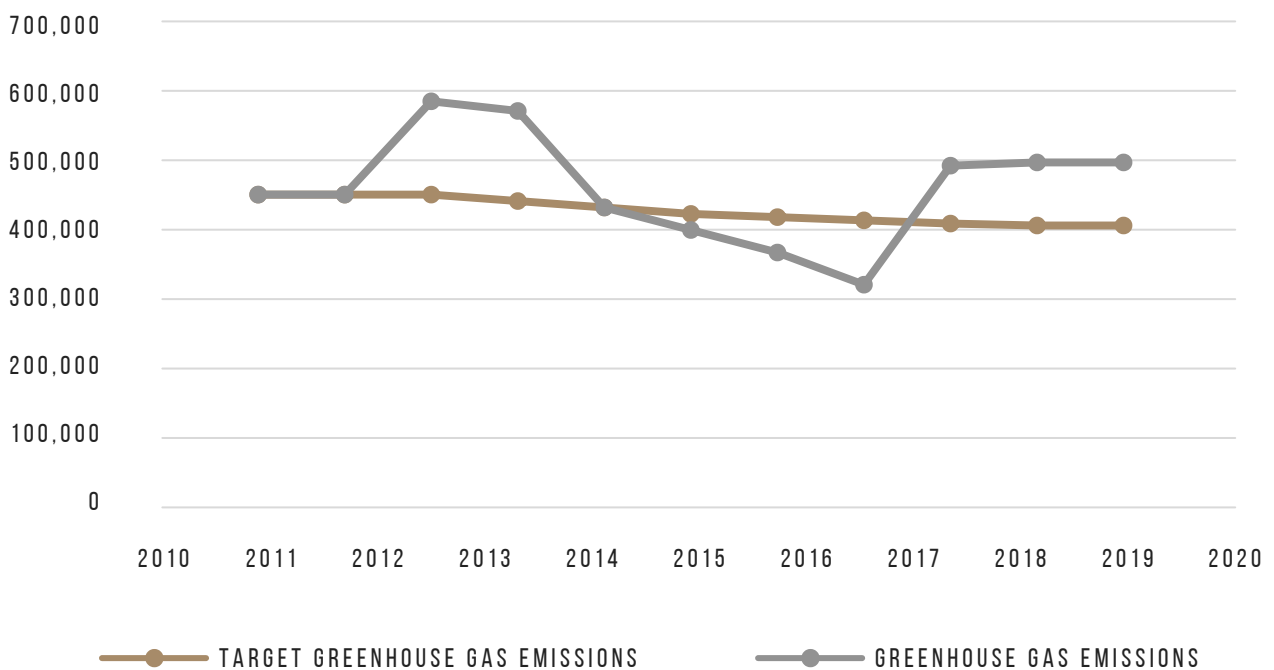
# CONTEXT

Globally temperatures are rising and extreme weather events are occurring with greater intensity and frequency. In order to fight against climate change countries around the world united in signing the Paris Climate Agreement, agreeing to strengthen the response to limit global average temperature rise to 2°C and to pursue efforts to limit the increase to 1.5°C by 2100. In order for Canada to meet its commitment, action is necessary at all levels of government and importantly at the local level.

The Federal and Provincial governments have focused significant policy effort on climate change, sustainability, renewable energy production and energy efficiency to fulfill this commitment.

Notwithstanding the Paris Climate Agreement, temperatures have continued to steadily increase and active weather events continue to increase in frequency and intensity. Local actions are needed to mitigate and adapt to these climate changes.

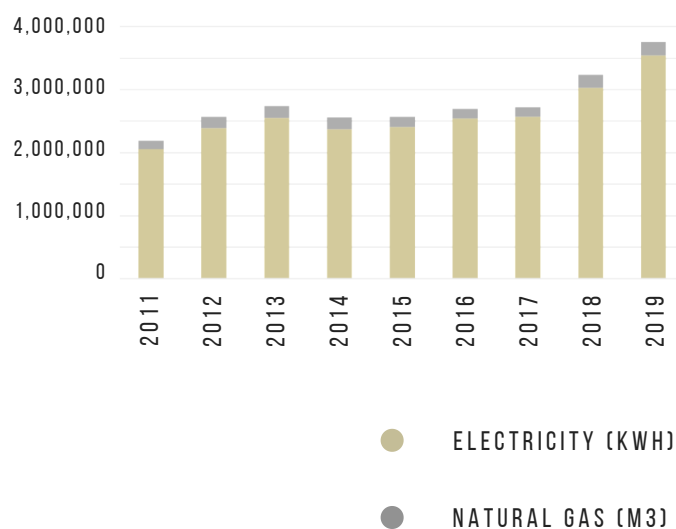
2011-2019 MUNICIPALITY OF CENTRAL ELGIN GREENHOUSE GAS EMISSIONS (KG)



# A STEP FORWARD

For the Municipality to achieve its goal of a 1%/year energy reduction, using 2011 baseline energy use data in the 2014 - 2019 Energy Conservation & Demand Management Plan, the Municipality would have produced 3,933,050 kg of greenhouse gas emissions. The Municipality actually produced 4,094,539 kg of greenhouse gas emissions. The deviation visible in 2018 and 2019 is attributable to growth related infrastructure needs. Cumulative energy usage data reaffirms these findings.

## MUNICIPALITY OF CENTRAL ELGIN ENERGY USAGE





# TARGET

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The Municipality of Central Elgin will exercise stewardship in its use of energy resources to demonstrate community leadership and enhance the overall quality of life in the community.

The Municipality of Central Elgin will strategically reduce total energy consumption and mitigate costs through the efficient use of energy and resources. The target will be assessed using 2011 baseline energy use data, to strive for an average 1%/year energy reduction, measured in greenhouse gas emissions.

Beyond legislative requirements, in the 2020-2025 Energy Conservation & Demand Management Plan, the Municipality will also track streetlights and parks energy usage, as well as vehicle fuel consumption.

## OBJECTIVES

In order to achieve the target identified in the 2020-2025 Municipality of Central Elgin Energy Conservation & Demand Management Plan, there are a number of goals and objectives that must align with its development and implementation:

### *Improve energy efficiency in municipal facilities*

- Audit and retrofit and/or update existing facilities
- Maximize sunlight heat entering during winter months to decrease heat energy consumption and minimize sunlight in summer months to reduce air conditioning energy use, explore window finishing options
- Install sensor lights

### *Install solar panels on municipal facilities or lots*

- Produce energy for municipal facilities, reducing operation costs
- Locate solar panels in a prominent locations to visually promote solar power installation
- Install public electric vehicle charging station(s) locations

### *Ensure development policies promote a high standard of construction*

- Produce energy for municipal facilities, reducing operation costs
- Locate solar panels in a prominent locations to visually promote solar power installation
- Install public electric vehicle charging station(s) locations

### *Expand active transportation opportunities*

- Expand and improve walking and cycling routes in and around settlement areas to encourage active transportation

### *Reduce municipal fuel consumption*

- Examine ways to reduce trip lengths, improve vehicle efficiency
- Monitor large vehicle hybrid, compressed natural gas, electric and bio-diesel technology and price developments

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The cumulative, aspirational goal of the Municipality of Central Elgin Energy Conservation & Demand Management Plan is to create a carbon-neutral government.

The objectives of the Municipality of Central Elgin Energy Conservation & Demand Management Plan will be supported by the following principles:

## INCENTIVE FUNDING

To ensure that the Municipality of Central Elgin takes advantage of all funding and grant opportunities related to energy efficient projects, the Municipality will liaise with representatives from local utility providers and other provincial or federal agencies. As funding opportunities arise that are suitable for specific energy conservation projects, staff will report to Council and clearly outline the cost savings associated with a successful application.

## ASSET MANAGEMENT

Asset management planning takes into consideration the potential impacts of climate change and any actions that may be required to address vulnerabilities that may be caused by climate change to municipal infrastructure assets. In addition, mitigation approaches, such as reduced energy consumption, can be a significant decision driver when replacing new assets or rehabilitating existing assets.

## FINANCIAL ASSESSMENT

Energy costs are manageable and can lead to additional savings as the culture of energy efficiency becomes fully integrated into the Municipality. The initiatives outlined in the Municipality of Central Elgin Energy Conservation & Demand Management Plan can yield individual savings, but as a whole a more efficient process, and operations, leading to accumulated sustainable savings in consumption and emissions.

## RENEWABLE ENERGY

The Municipality of Central Elgin aspires to show leadership in the promotion and development of renewable energy systems that are compatible with asset management and land use planning objectives. The Municipality will continue to investigate the potential to develop renewable energy systems throughout municipal facilities and operations.

## BASELINE DATA

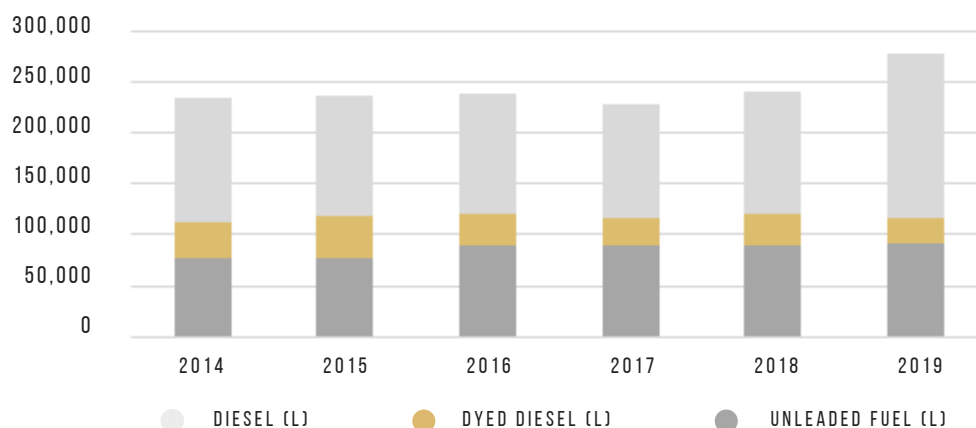
To efficiently manage energy within the Municipality, the establishment of accurate consumption data from the base year is essential. To set meaningful targets for energy reductions and ultimately, reductions, in greenhouse gas emissions, an understanding of where and how the energy is consumed is critical. By establishing a trend analysis, starting with the baseline year of 2011, provides the Municipality with a unique opportunity to monitor consumption as well as assist in bill verification, procurement and budgeting. The Municipality uses several energy sources including electricity, natural gas and vehicle fuel.



# FUEL CONSUMPTION

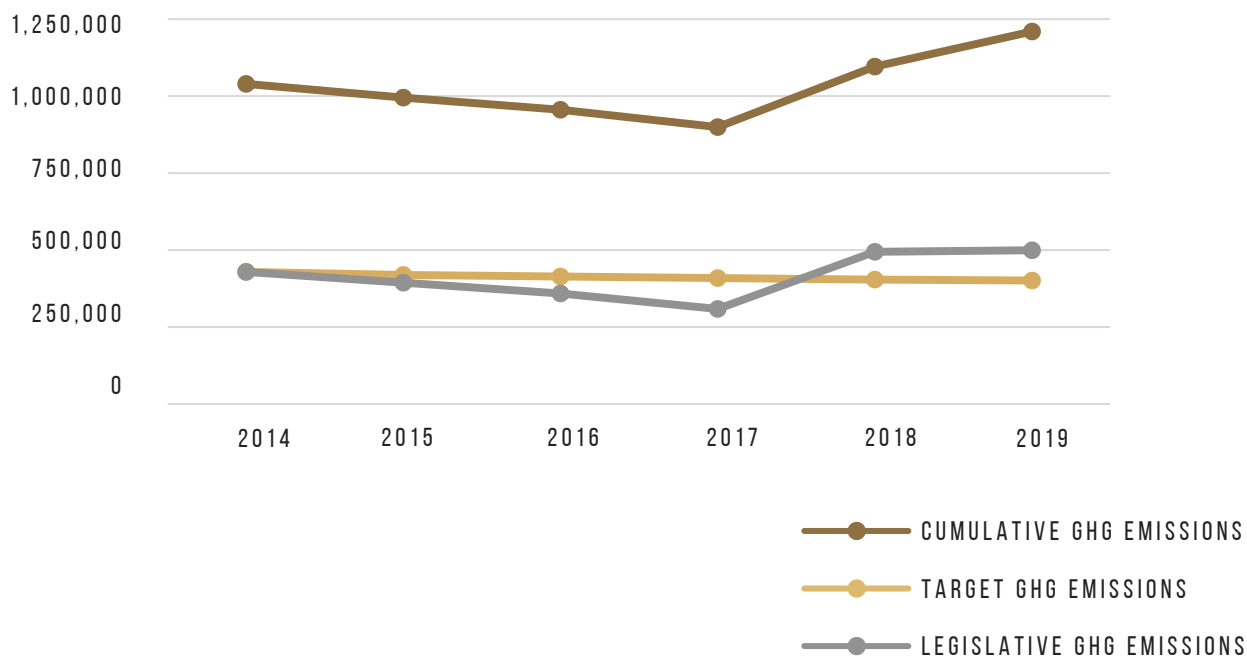
Beyond legislative requirements the Municipality of Central Elgin also tracks fleet fuel consumption. The data below showcases the Municipal fleet fuel consumption over the past years.

## MUNICIPALITY OF CENTRAL ELGIN FUEL USAGE



Adding fuel GHG Emissions to legislative GHG Emissions results in the following:

## 2014-2019 MUNICIPALITY OF CENTRAL ELGIN GREENHOUSE GAS EMISSIONS (KG)



# WHERE WE'RE GOING

## ENERGY PROJECTS

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Examples of Municipality of Central Elgin Energy Projects include but is not limited to:

- LED Streetlight conversion Project
- Pump Station 51 & 52 variable frequency drive pump installations
- Belmont Wastewater Treatment Plant aeration blower upgrades
- Port Stanley Wastewater Treatment Plant facility reconstruction
- Municipality of Central Elgin Station No. 1 – Port Stanley Fire Station Net Zero Project
- Installation of electric vehicle chargers in partnership with EARTH and Elgin County





# REVIEW

*Annual reporting of municipal energy management initiatives and consumption data will be to Council*



Continuous monitoring, verification, and reporting is an essential process to track consumption and costs associated with energy usage. The Finance Department is responsible for collating annual energy consumption data pursuant to Ontario Regulation 507/18 - Broader Public Sector: Energy Reporting and Conservation Demand Management Plans. Annual reporting of municipal energy management initiatives and consumption data will be to Council.

# APPENDIX A

The data below depicts the energy use for each Central Elgin department from the years 2011 to 2019.

## ENERGY USAGE

### 2011

### 2012

	Electricity (KWH)	Natural Gas (M3)	Electricity (KWH)	Natural Gas (M3)
<b>Streetlights &amp; Parks</b>				
Streetlights & Parks	0.00	0.00	0.00	0.00
<b>Subtotal</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>Cultural Services</b>				
Belmont Library	34,689.34	1,322.30	32,893.32	876.00
Kettle Creek Villa	243,940.65	6,312.22	200,415.00	51,708.10
Port Stanley Medical Centre - Lower	12,347.49	3,643.61	8,274.73	2,675.36
Port Stanley Medical Centre - Upper	27,714.38	929.53	16,401.72	989.11
<b>Subtotal</b>	<b>318,691.86</b>	<b>12,207.66</b>	<b>257,984.77</b>	<b>56,248.57</b>
<b>Operations</b>				
White Station Operations Centre	580.00	7,318.28	173,960.00	25,539.52
<b>Subtotal</b>	<b>580.00</b>	<b>7,318.28</b>	<b>173,960.00</b>	<b>25,539.52</b>
<b>Recreation</b>				
Recreation - Belmont Arena	489,947.53	51,715.70	487,071.50	40,699.30
Recreation - Port Stanley Arena	453,534.82	36,697.32	501,290.70	36,602.59
<b>Subtotal</b>	<b>943,482.35</b>	<b>88,413.02</b>	<b>988,362.20</b>	<b>77,301.89</b>
<b>Fire Rescue Services</b>				
Station No.1 - Green Roof	0.00	0.00	0.00	0.00
Station No.1 - Port Stanley Fire Hall	13,655.56	9,993.00	14,143.84	8,805.64
Station No.2 - Union Fire Hall	10,292.00	4,990.30	9,186.47	4,142.65
Station No.3 - Yarmouth Centre Fire Hall	15,120.00	8,841.05	14,595.75	7,841.86
Station No.4 - Belmont Fire Hall	11,821.82	4,545.50	12,283.94	4,298.10
<b>Subtotal</b>	<b>50,889.38</b>	<b>28,369.85</b>	<b>50,210.00</b>	<b>25,088.26</b>
<b>Wastewater</b>				
Wastewater - Belmont WWTP	67,302.43	0.00	223,200.00	0.00
Wastewater - Port Stanley WWTP	295,627.00	0.00	398,880.00	0.00
Wastewater - Pump Station 51	116,367.25	0.00	83,807.61	0.00
Wastewater - Pump Station 52	27,632.00	0.00	18,662.99	0.00
Wastewater - Pump Station 53	3,098.85	0.00	2,874.75	0.00
Wastewater - Pump Station 54	4,140.23	0.00	3,271.52	0.00
Wastewater - Pump Station 55	1,539.13	0.00	1,455.61	0.00
Wastewater - Pump Station 56	1,656.79	0.00	1,517.90	0.00
Wastewater - Pump Station 71	67,302.43	0.00	47,551.46	0.00
Wastewater - Pump Station 72	3,415.48	0.00	3,687.00	0.00
<b>Wastewater - Pump Station 73</b>	<b>2,676.00</b>	<b>0.00</b>	<b>2,676.00</b>	<b>0.00</b>
<b>Subtotal</b>	<b>590,757.59</b>	<b>0.00</b>	<b>787,584.84</b>	<b>0.00</b>
<b>Water</b>				
Water - Belmont Pumphouse	83,908.97	0.00	69,490.63	0.00
Water - Belmont Storage Tower	23,121.00	0.00	19,295.00	0.00
Water - Fruitridge Pump Station	5,235.00	0.00	6,146.76	0.00
Water - Port Stanley Storage Tower	40,282.00	0.00	36,867.00	0.00
<b>Subtotal</b>	<b>152,546.97</b>	<b>0.00</b>	<b>131,799.39</b>	<b>0.00</b>
<b>TOTAL</b>	<b>2,056,948.15</b>	<b>136,308.80</b>	<b>2,389,901.20</b>	<b>184,178.23</b>



## ENERGY USAGE

2013

2014

	Electricity (KWH)	Natural Gas (M3)	Electricity (KWH)	Natural Gas (M3)
<b>Streetlights &amp; Parks</b>				
Streetlights & Parks	0.00	0.00	0.00	0.00
<b>Subtotal</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>Cultural Services</b>				
Belmont Library	27,900.71	1,289.70	25,990.00	1,452.10
Kettle Creek Villa	213,898.20	34,166.10	240,038.00	6,634.99
Port Stanley Medical Centre - Lower	9,214.95	4,053.85	11,169.70	3,578.07
Port Stanley Medical Centre - Upper	17,317.05	965.27	16,500.90	933.77
<b>Subtotal</b>	<b>268,330.91</b>	<b>40,474.93</b>	<b>293,698.60</b>	<b>12,598.93</b>
<b>Operations</b>				
White Station Operations Centre	199,899.00	30,430.90	166,507.00	30,742.41
<b>Subtotal</b>	<b>199,899.00</b>	<b>30,430.90</b>	<b>166,507.00</b>	<b>30,742.41</b>
<b>Recreation</b>				
Recreation - Belmont Arena	571,284.80	48,465.90	493,583.60	53,574.30
Recreation - Port Stanley Arena	554,195.10	44,530.76	537,554.00	49,630.90
<b>Subtotal</b>	<b>1,125,479.90</b>	<b>92,996.66</b>	<b>1,031,137.60</b>	<b>103,205.20</b>
<b>Fire Rescue Services</b>				
Station No.1 - Green Roof	0.00	0.00	0.00	0.00
Station No.1 - Port Stanley Fire Hall	15,836.26	9,592.16	18,055.40	9,555.41
Station No.2 - Union Fire Hall	11,844.55	6,253.27	7,677.00	7,660.47
Station No.3 - Yarmouth Centre Fire Hall	15,222.78	8,072.01	9,631.00	9,892.83
Station No.4 - Belmont Fire Hall	12,533.07	5,577.70	12,392.50	8,512.30
<b>Subtotal</b>	<b>55,436.66</b>	<b>29,495.14</b>	<b>47,755.90</b>	<b>35,621.01</b>
<b>Wastewater</b>				
Wastewater - Belmont WWTP	95,040.00	0.00	164,848.00	0.00
Wastewater - Port Stanley WWTP	445,216.00	0.00	309,606.00	0.00
Wastewater - Pump Station 51	107,032.30	0.00	103,732.00	0.00
Wastewater - Pump Station 52	30,689.73	0.00	34,373.00	0.00
Wastewater - Pump Station 53	4,780.87	0.00	2,933.00	0.00
Wastewater - Pump Station 54	3,744.72	0.00	4,253.00	0.00
Wastewater - Pump Station 55	1,455.61	0.00	1,476.00	0.00
Wastewater - Pump Station 56	1,647.39	0.00	1,706.00	0.00
Wastewater - Pump Station 71	65,055.16	0.00	67,759.00	0.00
Wastewater - Pump Station 72	2,684.20	0.00	5,936.00	0.00
Wastewater - Pump Station 73	2,688.00	0.00	2,688.00	0.00
<b>Subtotal</b>	<b>760,033.98</b>	<b>0.00</b>	<b>699,310.00</b>	<b>0.00</b>
<b>Water</b>				
Water - Belmont Pumphouse	75,436.99	0.00	83,341.80	0.00
Water - Belmont Storage Tower	21,814.00	0.00	27,000.00	0.00
Water - Fruitridge Pump Station	4,492.35	0.00	7,986.00	0.00
Water - Port Stanley Storage Tower	41,357.00	0.00	20,225.00	0.00
<b>Subtotal</b>	<b>143,100.34</b>	<b>0.00</b>	<b>138,552.80</b>	<b>0.00</b>
<b>TOTAL</b>	<b>2,552,280.79</b>	<b>193,397.63</b>	<b>2,376,961.90</b>	<b>182,167.55</b>

## ENERGY USAGE

2015

2016

	Electricity (KWH)	Natural Gas (M3)	Electricity (KWH)	Natural Gas (M3)
<b>Streetlights &amp; Parks</b>				
Streetlights & Parks	0.00	0.00	0.00	0.00
<b>Subtotal</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>Cultural Services</b>				
Belmont Library	28,910.00	1,636.70	32,333.00	1,193.30
Kettle Creek Villa	225,364.00	5,653.20	221,601.00	7,061.42
Port Stanley Medical Centre - Lower	10,880.00	3,221.56	10,527.00	2,220.52
Port Stanley Medical Centre - Upper	17,767.00	977.79	20,623.00	822.27
<b>Subtotal</b>	<b>282,921.00</b>	<b>11,489.25</b>	<b>285,084.00</b>	<b>11,297.51</b>
<b>Operations</b>				
White Station Operations Centre	126,720.00	33,139.93	131,558.40	31,730.79
<b>Subtotal</b>	<b>126,720.00</b>	<b>33,139.93</b>	<b>131,558.40</b>	<b>31,730.79</b>
<b>Recreation</b>				
Recreation - Belmont Arena	492,678.00	46,303.40	520,764.00	37,373.90
Recreation - Port Stanley Arena	490,157.00	43,924.42	479,636.00	35,574.67
<b>Subtotal</b>	<b>982,835.00</b>	<b>90,227.82</b>	<b>1,000,400.00</b>	<b>72,948.57</b>
<b>Fire Rescue Services</b>				
Station No.1 - Green Roof	0.00	0.00	0.00	0.00
Station No.1 - Port Stanley Fire Hall	15,589.00	7,395.74	14,910.00	6,823.78
Station No.2 - Union Fire Hall	9,304.77	5,593.30	10,348.96	4,670.33
Station No.3 - Yarmouth Centre Fire Hall	13,044.56	7,075.64	14,279.21	6,412.04
Station No.4 - Belmont Fire Hall	17,946.00	7,102.90	14,834.00	5,451.80
<b>Subtotal</b>	<b>55,884.33</b>	<b>27,167.58</b>	<b>54,372.17</b>	<b>23,357.95</b>
<b>Wastewater</b>				
Wastewater - Belmont WWTP	210,480.00	0.00	263,014.56	0.00
Wastewater - Port Stanley WWTP	411,120.00	0.00	462,182.00	0.00
Wastewater - Pump Station 51	92,246.00	0.00	92,545.00	0.00
Wastewater - Pump Station 52	29,633.00	0.00	23,224.00	0.00
Wastewater - Pump Station 53	3,060.00	0.00	2,907.00	0.00
Wastewater - Pump Station 54	3,541.00	0.00	3,572.00	0.00
Wastewater - Pump Station 55	1,397.00	0.00	1,366.00	0.00
Wastewater - Pump Station 56	1,612.00	0.00	1,577.00	0.00
Wastewater - Pump Station 71	57,903.00	0.00	56,030.00	0.00
Wastewater - Pump Station 72	5,980.00	0.00	7,009.00	0.00
Wastewater - Pump Station 73	3,194.00	0.00	5,856.00	0.00
<b>Subtotal</b>	<b>820,166.00</b>	<b>0.00</b>	<b>919,282.56</b>	<b>0.00</b>
<b>Water</b>				
Water - Belmont Pumphouse	77,140.00	0.00	76,743.00	0.00
Water - Belmont Storage Tower	24,775.00	0.00	25,418.00	0.00
Water - Fruitridge Pump Station	7,525.55	0.00	7,679.87	0.00
Water - Port Stanley Storage Tower	33,190.00	0.00	46,504.00	0.00
<b>Subtotal</b>	<b>142,630.55</b>	<b>0.00</b>	<b>156,344.87</b>	<b>0.00</b>
<b>TOTAL</b>	<b>2,411,156.88</b>	<b>162,024.58</b>	<b>2,547,042.00</b>	<b>139,334.82</b>

## ENERGY USAGE

2017

2018

	Electricity (KWH)	Natural Gas (M3)	Electricity (KWH)	Natural Gas (M3)
<b>Streetlights &amp; Parks</b>				
Streetlights & Parks	0.00	0.00	364,107.00	2,234.00
<b>Subtotal</b>	<b>0.00</b>	<b>0.00</b>	<b>364,107.00</b>	<b>2,234.00</b>
<b>Cultural Services</b>				
Belmont Library	29,592.00	1,510.50	29,467.00	1,708.00
Kettle Creek Villa	211,697.00	7,752.05	236,150.00	8,024.00
Port Stanley Medical Centre - Lower	11,157.00	2,726.99	10,658.00	3,155.00
Port Stanley Medical Centre - Upper	22,067.00	802.41	19,588.00	815.00
<b>Subtotal</b>	<b>274,513.00</b>	<b>12,791.95</b>	<b>295,863.00</b>	<b>13,702.00</b>
<b>Operations</b>				
White Station Operations Centre	133,149.72	32,854.77	143,928.00	41,279.00
<b>Subtotal</b>	<b>133,149.72</b>	<b>32,854.77</b>	<b>143,928.00</b>	<b>41,279.00</b>
<b>Recreation</b>				
Recreation - Belmont Arena	474,186.00	44,585.20	504,700.00	44,758.00
Recreation - Port Stanley Arena	525,164.00	37,267.93	567,282.00	43,681.00
<b>Subtotal</b>	<b>999,350.00</b>	<b>81,853.13</b>	<b>1,071,982.00</b>	<b>88,439.00</b>
<b>Fire Rescue Services</b>				
Station No.1 - Green Roof	1,862.04	0.00	1,615.00	1,886.00
Station No.1 - Port Stanley Fire Hall	12,083.00	7,979.38	12,482.00	8,138.00
Station No.2 - Union Fire Hall	11,153.62	6,329.04	10,174.00	6,626.00
Station No.3 - Yarmouth Centre Fire Hall	13,140.20	5,214.80	15,308.00	8,659.00
Station No.4 - Belmont Fire Hall	18,233.00	1,252.10	20,668.00	7,725.00
<b>Subtotal</b>	<b>56,471.86</b>	<b>20,775.32</b>	<b>60,247.00</b>	<b>33,034.00</b>
<b>Wastewater</b>				
Wastewater - Belmont WWTP	249,341.00	0.00	418,388.00	0.00
Wastewater - Port Stanley WWTP	446,925.00	0.00	528,595.00	33,562.00
Wastewater - Pump Station 51	142,696.00	0.00	237,768.00	0.00
Wastewater - Pump Station 52	32,600.00	0.00	10,733.00	0.00
Wastewater - Pump Station 53	2,827.00	0.00	3,217.00	0.00
Wastewater - Pump Station 54	3,746.00	0.00	4,937.00	0.00
Wastewater - Pump Station 55	1,409.00	0.00	1,572.00	0.00
Wastewater - Pump Station 56	1,612.00	0.00	1,876.00	0.00
Wastewater - Pump Station 71	59,990.00	0.00	66,238.00	0.00
Wastewater - Pump Station 72	6,864.00	0.00	9,002.00	0.00
Wastewater - Pump Station 73	5,966.00	0.00	6,241.00	0.00
<b>Subtotal</b>	<b>953,976.00</b>	<b>0.00</b>	<b>1,288,567.00</b>	<b>33,562.00</b>
<b>Water</b>				
Water - Belmont Pumphouse	75,582.00	0.00	87,448.00	0.00
Water - Belmont Storage Tower	23,018.00	0.00	27,441.00	0.00
Water - Fruitridge Pump Station	9,395.92	0.00	8,111.00	0.00
Water - Port Stanley Storage Tower	47,007.00	0.00	47,000.00	0.00
<b>Subtotal</b>	<b>155,002.92</b>	<b>0.00</b>	<b>170,000.00</b>	<b>0.00</b>
<b>TOTAL</b>	<b>2,572,463.50</b>	<b>148,275.17</b>	<b>3,394,694.00</b>	<b>212,250.00</b>



# ENERGY USAGE

# 2019

	Electricity (KWH)	Natural Gas (M3)
<b>Streetlights &amp; Parks</b>		
Streetlights & Parks	392,229.00	2,350.00
<b>Subtotal</b>	<b>392,229.00</b>	<b>2,350.00</b>
<b>Cultural Services</b>		
Belmont Library	26,772.00	1,738.00
Kettle Creek Villa	219,705.00	8,258.00
Port Stanley Medical Centre - Lower	11,289.00	2,978.00
Port Stanley Medical Centre - Upper	16,535.00	844.00
<b>Subtotal</b>	<b>274,301.00</b>	<b>13,818.00</b>
<b>Operations</b>		
White Station Operations Centre	153,062.00	38,568.00
<b>Subtotal</b>	<b>153,062.00</b>	<b>38,568.00</b>
<b>Recreation</b>		
Recreation - Belmont Arena	496,346.00	56,456.00
Recreation - Port Stanley Arena	584,036.00	43,254.00
<b>Subtotal</b>	<b>1,080,382.00</b>	<b>99,710.00</b>
<b>Fire Rescue Services</b>		
Station No.1 - Green Roof	2,153.00	788.00
Station No.1 - Port Stanley Fire Hall	12,982.00	8,142.00
Station No.2 - Union Fire Hall	10,896.00	5,769.00
Station No.3 - Yarmouth Centre Fire Hall	15,691.00	7,707.00
Station No.4 - Belmont Fire Hall	18,693.00	8,675.00
<b>Subtotal</b>	<b>60,415.00</b>	<b>31,081.00</b>
<b>Wastewater</b>		
Wastewater - Belmont WWTP	530,914.00	0.00
Wastewater - Port Stanley WWTP	457,017.00	31,422.00
Wastewater - Pump Station 51	273,446.00	0.00
Wastewater - Pump Station 52	81,570.00	0.00
Wastewater - Pump Station 53	3,666.00	0.00
Wastewater - Pump Station 54	7,595.00	0.00
Wastewater - Pump Station 55	1,653.00	0.00
Wastewater - Pump Station 56	1,665.00	0.00
Wastewater - Pump Station 71	65,669.00	0.00
Wastewater - Pump Station 72	7,880.00	0.00
<b>Wastewater - Pump Station 73</b>	<b>6,165.00</b>	<b>0.00</b>
<b>Subtotal</b>	<b>1,437,240.00</b>	<b>31,422.00</b>
<b>Water</b>		
Water - Belmont Pumphouse	76,673.00	0.00
Water - Belmont Storage Tower	25,327.00	0.00
Water - Fruitridge Pump Station	8,078.00	0.00
Water - Port Stanley Storage Tower	42,938.00	0.00
<b>Subtotal</b>	<b>153,016.00</b>	<b>0.00</b>
<b>TOTAL</b>	<b>3,550,645.00</b>	<b>216,949.00</b>

# APPENDIX B

The data below depicts the fuel usage for each Central Elgin department from the years 2014 to 2020.

FUEL TYPE	2014	2015	2016	2017
<b>Unleaded Fuel (L)</b>	<b>77,065.00</b>	<b>77,831.00</b>	<b>88,935.00</b>	<b>89,466.00</b>
GHG Emissions (Kg)	176,479.00	178,233.00	203,661.00	204,877.00
<b>Dyed Diesel (L)</b>	<b>36,070.00</b>	<b>40,974.00</b>	<b>32,584.00</b>	<b>27,166.00</b>
GHG Emissions (Kg)	95,946.00	108,991.00	86,673.00	72,262.00
<b>Diesel (L)</b>	<b>122,804.00</b>	<b>118,883.00</b>	<b>116,746.00</b>	<b>111,592.00</b>
GHG Emissions (Kg)	326,659.00	316,229.00	310,544.00	296,835.00
<b>Total Fuel GHG Emission s(Kg)</b>	<b>599,084.00</b>	<b>603,453.00</b>	<b>600,879.00</b>	<b>573,973.00</b>

FUEL TYPE	2018	2019	2020
<b>Unleaded Fuel (L)</b>	<b>89,655.00</b>	<b>90,928.00</b>	<b>98,299.00</b>
GHG Emissions (Kg)	205,310.00	208,225.00	225,105.00
<b>Dyed Diesel (L)</b>	<b>30,807.00</b>	<b>26,597.00</b>	<b>33,555.00</b>
GHG Emissions (Kg)	81,947.00	70,748.00	89,256.00
<b>Diesel (L)</b>	<b>120,584.00</b>	<b>160,621.00</b>	<b>177,756.00</b>
GHG Emissions (Kg)	320,753.00	427,252.00	472,831.00
<b>Total Fuel GHG Emission s(Kg)</b>	<b>608,010.00</b>	<b>706,225.00</b>	<b>787,192.00</b>