



ENERGY CONSERVATION & DEMAND MANAGEMENT PLAN 2019

Executive Summary

The purpose of this Energy Conservation and Demand Management (ECDM) Plan from Windsor Regional Hospital (“WRH”) is to outline specific actions and measures that will promote good stewardship of our environment and community resources in the years to come. The Plan will accomplish this, in part, by looking at future projections of energy consumption and reviewing past conservation measures.

In keeping with WRH’s core values of efficiency, concern for the environment and financial responsibility, this ECDM outlines how the hospital will reduce overall energy consumption, operating costs and greenhouse gas emissions. By following the measures outlined in this document, we will be able to provide compassionate service to more people in the community. This ECDM Plan is written in accordance with sections 4, 5, and 6 of the recently amended Electricity Act, 1998, O. Reg. 507/18.

Through past conservation and demand initiatives, WRH has achieved the following results since 2014:

- 83,625 kWh reduction in electricity use
- 63,622 m3 increase in natural gas use

Today, utility and energy related costs are a significant part of overall operating costs. In 2018:

- Energy Use Index (EUI) was 57 ekWh/ft²
- Energy-related emissions equaled 9,960 tCO₂e

To obtain full value from energy management activities, WRH will take a strategic approach to fully integrate energy management into its business decision-making, policies and operating procedures. This active management of energy-related costs and risks will provide a significant economic return and will support other key organizational objectives.

With this prominent focus on energy management, WRH can expect to achieve the following targets by 2024:

- ~8% reduction in electricity consumption
- ~10% reduction in natural gas consumption
- 971 tCO₂e carbon equivalent emissions

Contents

- Executive Summary..... 1
- 1. Introduction 3
- 2. Regulatory Update 5
- 3. About Windsor Regional Hospital 6
 - 3.1. Site-Wide Historical Energy Intensity..... 6
 - 3.2. Site-Wide Historical GHG Emissions 7
- 4. Site Analysis 9
 - 4.1. Metropolitan Campus 9
 - 4.1.1. Utility Consumption Analysis 10
 - 4.1.2. GHG Emissions Analysis 10
 - 4.1.3. Proposed Conservation Measures 11
 - 4.1.4. Utility Consumption Forecast 12
 - 4.1.5. GHG Emissions Forecast..... 13
 - 4.2. Ouellette Campus 14
 - 4.2.1. Utility Consumption Analysis 15
 - 4.2.2. GHG Emissions Analysis 15
 - 4.2.3. Proposed Conservation Measures 16
 - 4.2.4. Utility Consumption Forecast 17
 - 4.2.5. GHG Emissions Forecast..... 18
- 5. Site Outlook..... 19
 - 5.1. Site-Wide Utility Consumption Forecast..... 19
 - 5.2. Site-Wide GHG Emissions Forecast..... 20
- 6. Closing Comments 21
- 7. Appendix 22
 - 7.1. Glossary of terms 22
 - 7.2. List of Pictures, Tables and Figures 23

1. Introduction

In order to obtain full value from energy management activities, and to strengthen our conservation initiatives, a strategic approach must be taken. Our organization will strive to fully integrate energy management into our practices by considering indoor environmental quality, operational efficiency and sustainably sourced resources when making financial decisions. The results and the progress of the past five years, and the projected impact of the new ECDM Plan is presented in the chart & table below.

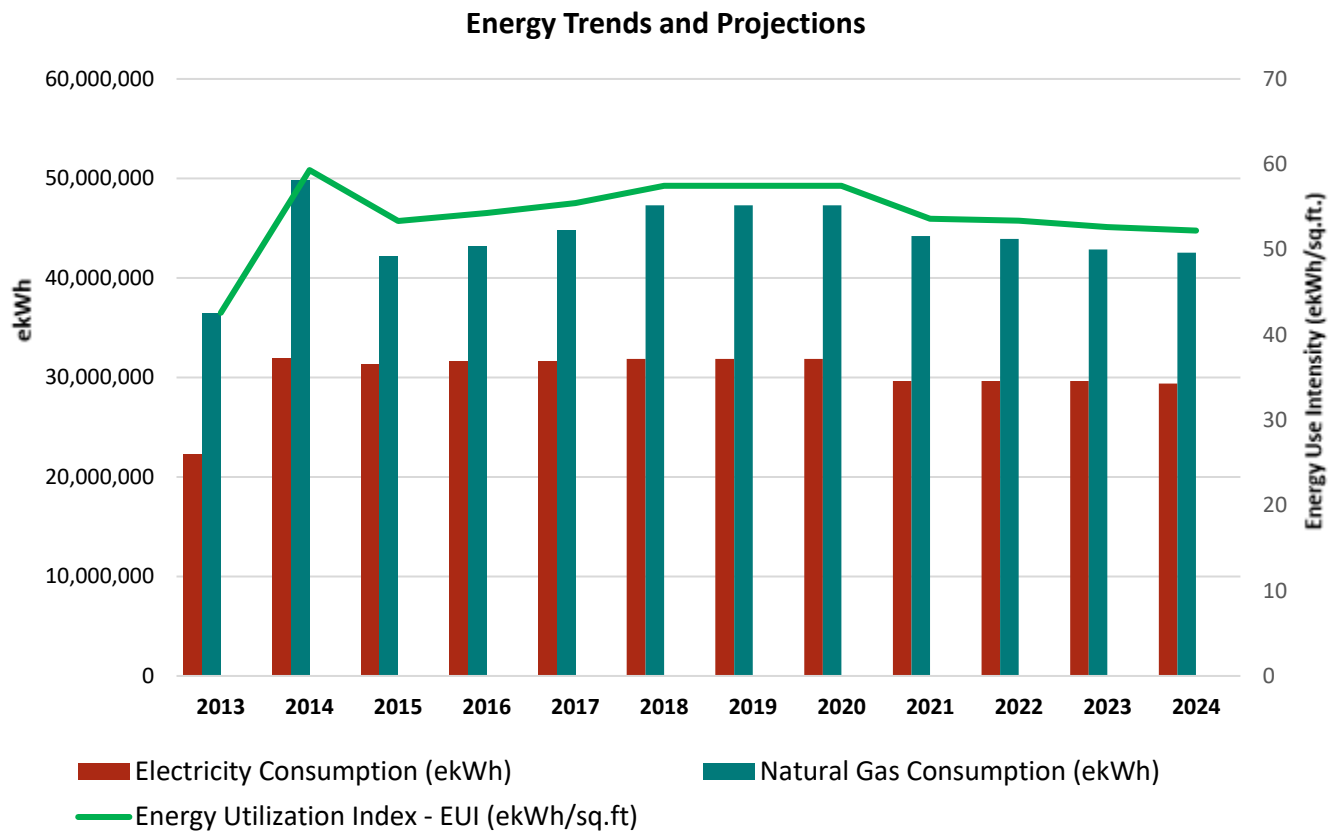


Figure 1. Site-Wide Energy Consumption Trends & Projections

ECDM Program Summary	2013	2014	2015	2016	2017	2018
Electricity Consumption (ekWh)	22,244,298	31,948,023	31,347,368	31,591,302	31,584,555	31,864,397
Natural Gas Consumption (ekWh)	36,423,704	49,765,099	42,118,092	43,173,392	44,815,333	47,294,617
Facility Size (Sq. ft.)	1,377,652	1,377,652	1,377,652	1,377,652	1,377,652	1,377,652
Energy Utilization Index - EUI (ekWh/sq.ft.)	43	59	53	54	55	57
ECDM Program Projections	2019	2020	2021	2022	2023	2024
Electricity Consumption (ekWh)	31,864,397	31,864,397	29,631,397	29,627,874	29,627,874	29,398,073
Natural Gas Consumption (ekWh)	47,294,617	47,294,617	44,216,277	43,918,871	42,868,212	42,541,718
Facility Size (Sq. ft.)	1,377,652	1,377,652	1,377,652	1,377,652	1,377,652	1,377,652
Energy Utilization Index - EUI (ekWh/sq.ft.)	57	57	54	53	53	52

Table 1. Site-Wide Energy Consumption Trends & Projections

Windsor Regional Hospital is the 11th largest hospital in the Province of Ontario and the 3rd largest community teaching hospital, serving a population of about 400,000 people in Windsor and Essex County along with providing tertiary and quaternary care to thousands more. Windsor Regional Hospital is the key provider of Acute Care and Emergency Services for Windsor/Essex.

Our Vision



Outstanding Care – No Exceptions!

Our Mission

Deliver an outstanding patient care experience driven by a passionate commitment to excellence

Our Values

CARE

C – COMPASSIONATE	A – ACCOUNTABLE	R – RESPECTFUL	E – EXCEPTIONAL
<ul style="list-style-type: none"> ▪ keeping the patient at the centre of all we do; ▪ demonstrating compassion for patients and their families; ▪ supporting staff, professional staff, and volunteers so they are able to care for patients and each other; and ▪ operating as a team, both within WRH and with our partners, to provide exemplary care. 	<ul style="list-style-type: none"> ▪ striving for accountability and transparency to those we serve and to ourselves; ▪ driving fiscal responsibility; ▪ stimulating effective two-way communication at all levels; and ▪ facilitating timely access to care and service. 	<ul style="list-style-type: none"> ▪ treating those we serve and each other with empathy, sensitivity and honesty; ▪ upholding trust, confidentiality and teamwork; ▪ communicating effectively; and ▪ welcoming individuality, creativity and diversity. 	<ul style="list-style-type: none"> ▪ promoting a culture of quality and safety; ▪ embracing change, innovation, and evidence-based practice; ▪ encouraging learning, discovery, and knowledge sharing; and ▪ fostering dynamic partnerships.
 David Mark Musyj President and CEO	 Robert Renaud Board Chair		

Picture 1. Our Values

2. Regulatory Update

O. Reg. 397/11: Conservation and Demand Management Plans was introduced in 2013. Under this regulation, public agencies were required to report on energy consumption and greenhouse gas (GHG) emissions and develop Conservation and Demand Management (CDM) plans the following year.

Until recently, O. Reg. 397/11 was housed under the Green Energy Act, 2009 (GEA). On December 7, 2018, the Ontario government passed Bill 34, Green Energy Repeal Act, 2018. The Bill repealed the GEA and all its underlying Regulations, including O. Reg. 397/11. However, it re-enacted various provisions of the GEA under the Electricity Act, 1998.

As a result, the conservation and energy efficiency initiatives, namely CDM plans and broader public sector energy reporting, were re-introduced as amendments to the Electricity Act. The new regulation is now called **O. Reg. 507/18: Broader Public Sector: Energy Conservation and Demand Management Plans (ECDM)**.

As of January 1, 2019, O. Reg. 397/11 was replaced by O. Reg. 507/18, and BPS reporting and ECDM plans are under the Electricity Act, 1998 rather than the Green Energy Act, 2009.

3. About Windsor Regional Hospital

WRH is responsible for all acute care services in Windsor and currently operates out of two campuses – the Metropolitan Campus and the Ouellette Campus. WRH has more than 3,700 staff members, 515 physicians, and 890 volunteers. We provide outstanding care in the areas of complex trauma, renal dialysis, cardiac care, stroke and neurosurgery, intensive care, acute mental health, family birthing centre, neonatal intensive care pediatric services, regional cancer services, and a broad range of medical and surgical services supporting these specializations.

3.1. Site-Wide Historical Energy Intensity

Energy Utilization Index is a measure of how much energy a facility uses per square foot. By breaking down a facility’s energy consumption on a per-square-foot-basis, we can compare facilities of different sizes with ease. In this case, we are comparing our facility to the industry average for Ontario hospitals (derived from Natural Resources Canada’s Commercial and Institutional Consumption of Energy Survey), which was found to be **63.23 ekWh/sq. ft.**

Annual Consumption (EUI)						
Site	2013	2014	2015	2016	2017	2018
Metropolitan Campus	77	75	68	69	72	76
Ouellette Campus	15	47	42	43	43	43

Table 2. Historic Energy Utilization Indices for all Sites

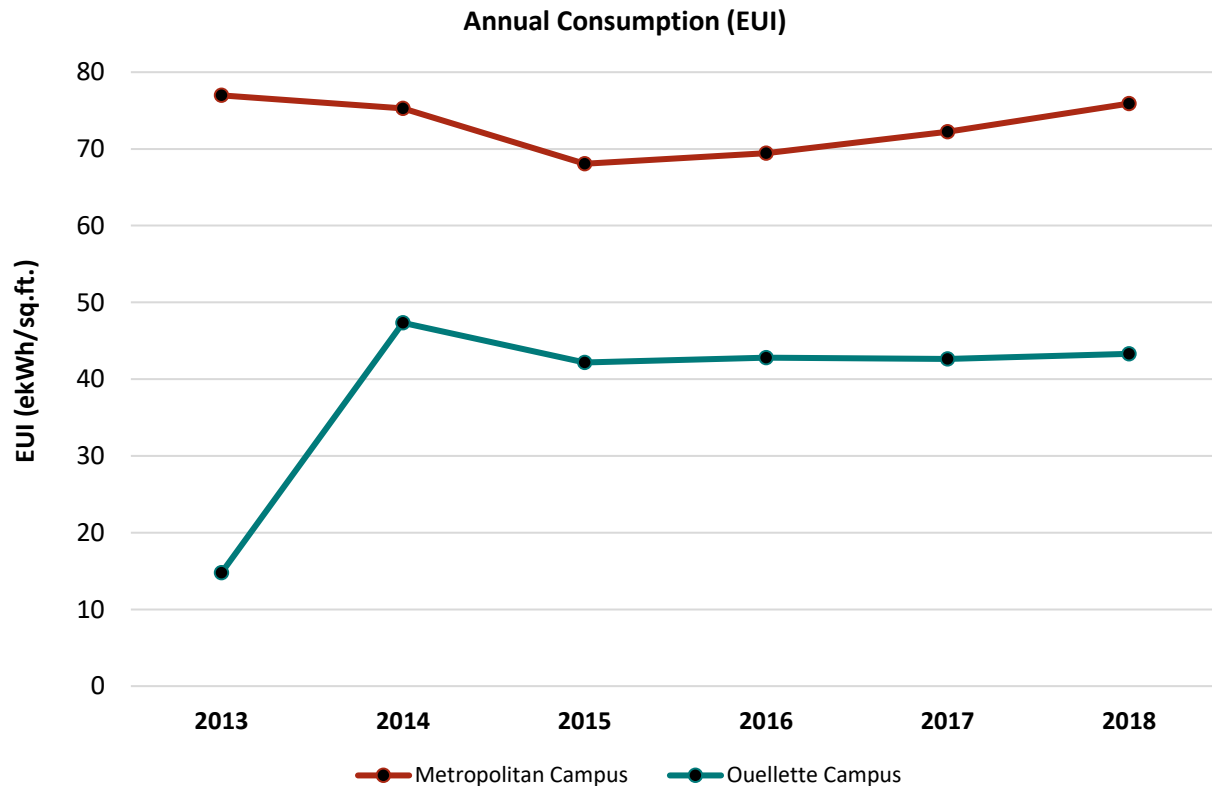


Figure 2. Historic Annual Energy Utilization Indices for all Sites

3.2. Site-Wide Historical GHG Emissions

Greenhouse gas (GHG) emissions are expressed in terms of equivalent tonnes of Carbon Dioxide (tCO₂e). The GHG emissions associated with a facility are dependent on the fuel source — for example, hydroelectricity produces fewer greenhouse gases than coal-fired plants, and light fuel oil produces fewer GHGs than heavy oil.

Electricity from the grid in Ontario is relatively “clean”, as the majority is derived from low-GHG hydroelectricity, and coal-fired plants have been phased out. Scope 1 (natural gas) and Scope 2 (electricity) consumptions have been converted to their equivalent tonnes of greenhouse gas emissions in the table below. Scope 1 represents the direct emissions from sources owned or controlled by the institution, and Scope 2 consists of indirect emissions from the consumption of purchased energy generated upstream from the institution.

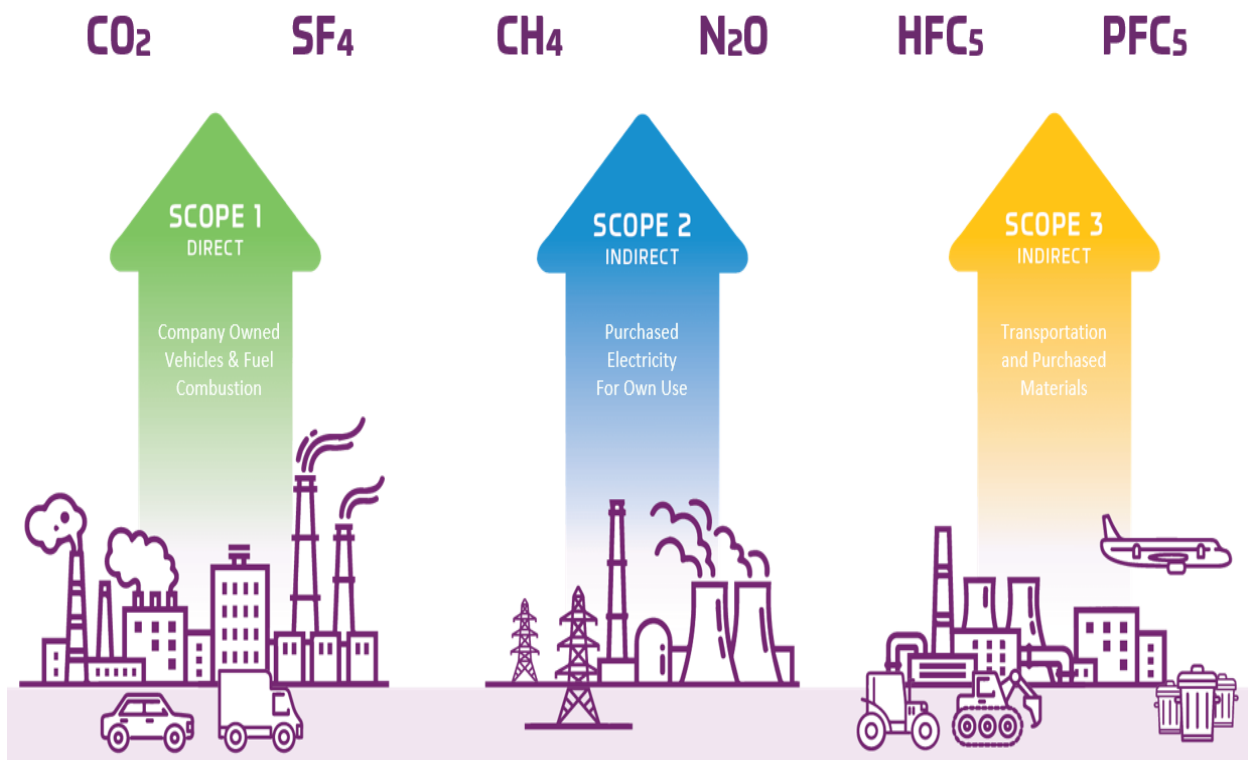


Figure 3. Examples of Scope 1 and 2

The site-wide greenhouse gas emissions for WRH have been tabulated and are represented in the table and graph below.

GHG Emissions	2013	2014	2015	2016	2017	2018
Electricity (scope 2)	912	1,310	1,285	1,295	1,295	1,306
Natural Gas (scope 1)	6,664	9,105	7,706	7,899	8,200	8,653
Total Scope 1 & 2 Emissions	7,576	10,415	8,991	9,194	9,494	9,960

Table 3. Historic Greenhouse Gas Emissions for all Sites

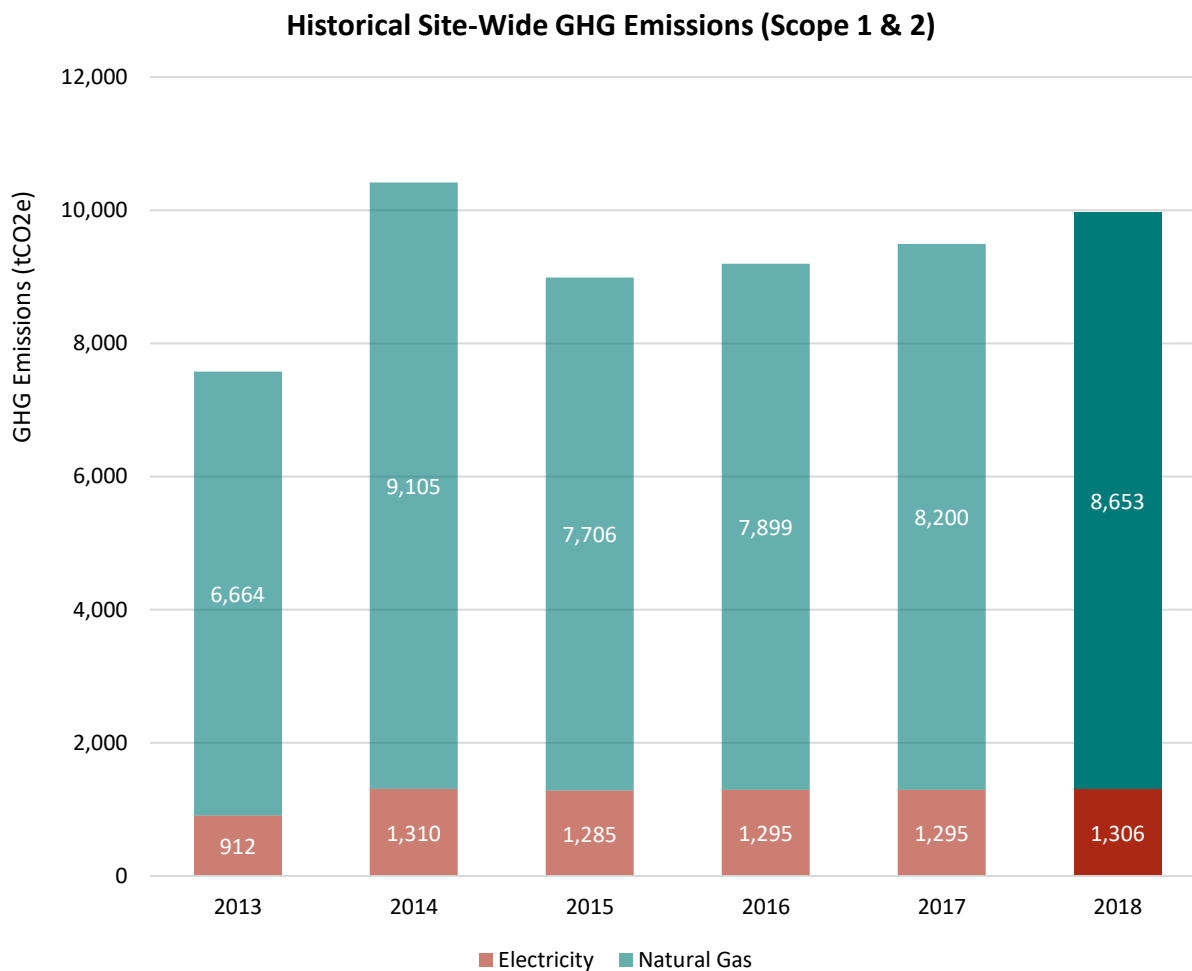


Figure 4. Historic Greenhouse Gas Emissions for all Sites

4. Site Analysis

The following section will introduce each of our sites and provide a brief description about the building and its operations, energy & greenhouse gas (GHG) emissions trends, and specific conservation measures.

4.1. Metropolitan Campus



Picture 2. Metropolitan Campus

The Metropolitan Campus opened in 1928 as a community based, acute care hospital. Throughout its history, the Met Campus has focused on medical and surgical care with specialized services in areas of cancer and burns.

Facility Information	
Facility Name	Metropolitan Campus
Facility Type	Healthcare Services
Address	1995 Lens Avenue, Windsor, ON
Gross Area (Sq. Ft)	614,122
Average of Operational Hours in a Week	168
Number of Floors	8

Table 4. Metropolitan Campus Facility Information

4.1.1. Utility Consumption Analysis

Utilities to the site are electricity and natural gas. The following table summarizes the accounts for each utility. Consumption for each respective utility has been adjusted to fit a regular calendar year (365 days).

Annual Consumption (units)						
Utility	2013	2014	2015	2016	2017	2018
Electricity (kWh)	17,766,241	17,435,133	17,580,175	17,693,412	17,592,803	17,768,708
Natural Gas (m ³)	2,900,098	2,829,234	2,383,353	2,453,929	2,633,587	2,835,476

Table 5. Historic Annual Utility Consumption for Metropolitan Campus

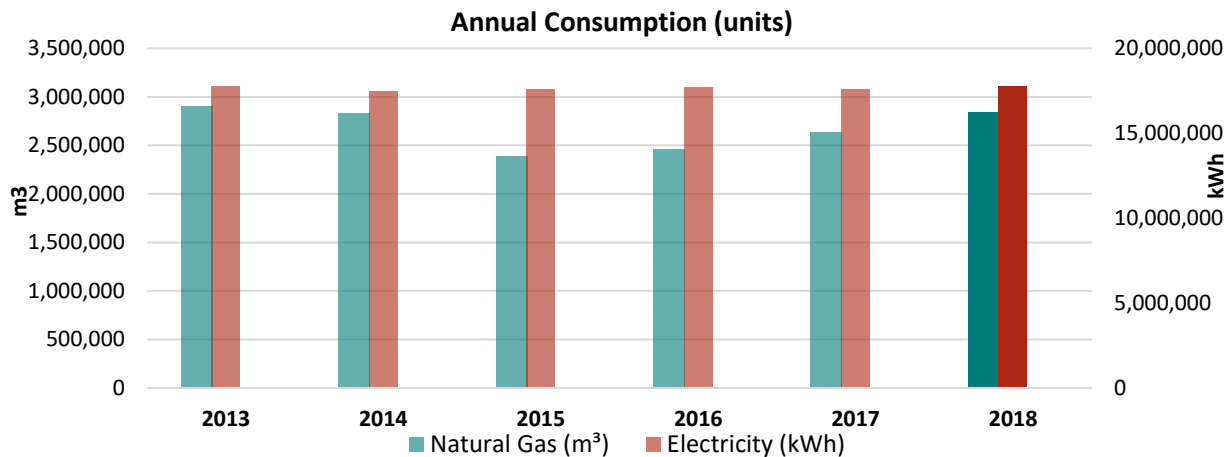


Figure 5. Historic Annual Utility Consumption for Metropolitan Campus

4.1.2. GHG Emissions Analysis

The greenhouse gas emissions are calculated based on the energy consumption data analyzed in the following table.

GHG Emissions (tCO ₂ e)						
Utility Source	2013	2014	2015	2016	2017	2018
Electricity (scope 2)	728	715	721	725	721	729
Natural Gas (scope 1)	5,481	5,347	4,505	4,638	4,977	5,359
Totals	6,210	6,062	5,225	5,363	5,699	6,088

Table 6. Historic Annual Greenhouse Gas Emissions for Metropolitan Campus

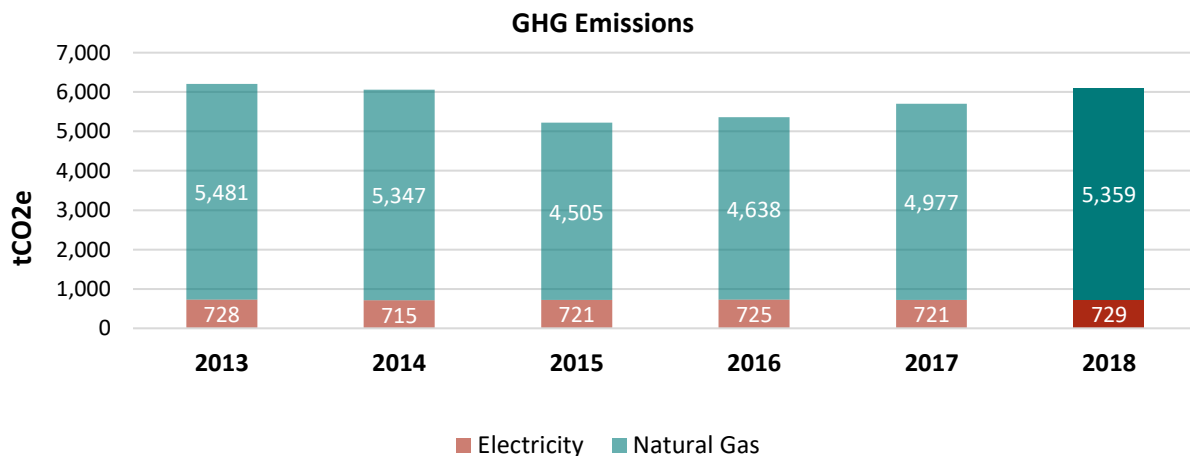


Figure 6. Historic Annual Greenhouse Gas Emissions for Metropolitan Campus

4.1.3. Proposed Conservation Measures

Our energy analysis has revealed several conservation strategies for the facility. The proposed energy saving initiatives are summarized in the table below outlining the targeted utilities. These measures will remain in place until a more efficient and cost-effective technology is found.

Measure	Impacted Utility	Estimated Annual Savings		Simple Payback (years)	Year of Implementation
		kWh	m3		
HVAC Scheduling	Electricity & Natural Gas	625,000	110,000	0.64	2020
Steam Trap Survey	Natural Gas	0	28,355	0.71	2021
Instantaneous Hot Water Heater	Natural Gas	0	56,710	11.34	2022
Dual Duct Mixing Box Replacement	Electricity & Natural Gas	88,844	14,177	10.81	2023
Air Handling Upgrades & Repairs	Electricity & Natural Gas	70,478	17,429	12.67	2023
LED Lighting Upgrade	Electricity	1,100,000	0	9.05	2020
Totals		1,884,322	226,671		

Table 7. Proposed Conservation Measures for Metropolitan Campus

4.1.4. Utility Consumption Forecast

By implementing the energy conservation measures stated in the previous section, the forecasted electricity and natural gas use could be forecasted based on the utility savings generated from individual measures. The forecasted utility consumption is tabulated below. The percentage of change is based off the data from the baseline year of 2018.

Annual Consumption												
	2019		2020		2021		2022		2023		2024	
	Units	% Change	Units	% Change	Units	% Change	Units	% Change	Units	% Change	Units	% Change
Electricity (kWh)	17,768,708	0%	16,043,708	10%	16,043,708	10%	16,043,708	10%	15,884,386	11%	15,884,386	11%
Natural Gas (m ³)	2,835,476	0%	2,725,476	4%	2,697,121	5%	2,640,412	7%	2,608,805	8%	2,608,805	8%

Table 8. Forecast of Annual Utility Consumption for Metropolitan Campus

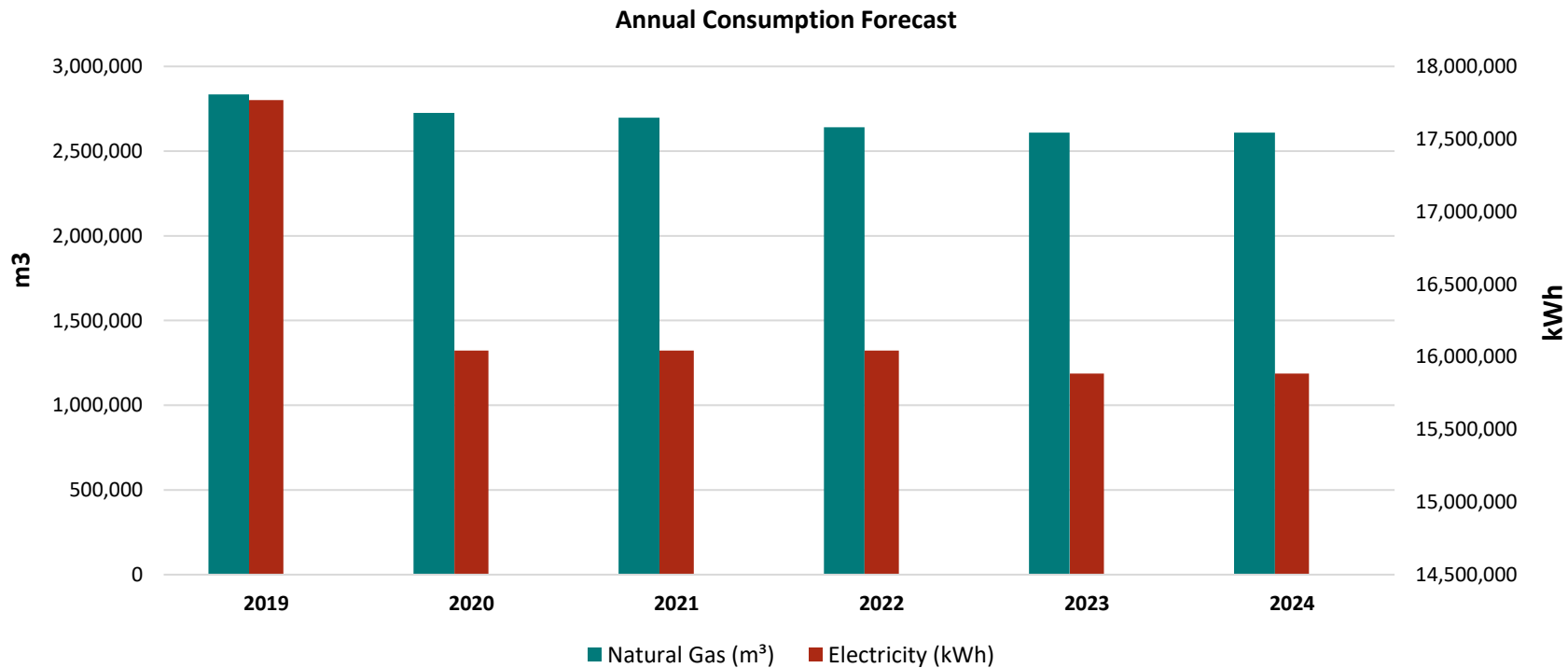


Figure 7. Forecast of Annual Utility Consumption for Metropolitan Campus

4.1.5. GHG Emissions Forecast

The forecasted greenhouse gas emissions are calculated based on the forecasted energy consumption data analyzed in the previous section and are tabulated in the following table. The percentage of reduction is based off the data from the baseline year of 2018.

GHG Emissions (tCO ₂ e)						
Utility Source	2019	2020	2021	2022	2023	2024
Electricity (scope 2)	729	658	658	658	651	651
Natural Gas (scope 1)	5,359	5,151	5,098	4,990	4,931	4,931
Totals	6,088	5,809	5,755	5,648	5,582	5,582
Reduction from Baseline Year (2018)	0.00%	4.58%	5.46%	7.22%	8.31%	8.31%

Table 9. Forecast of Annual Greenhouse Gas Emissions for Metropolitan Campus

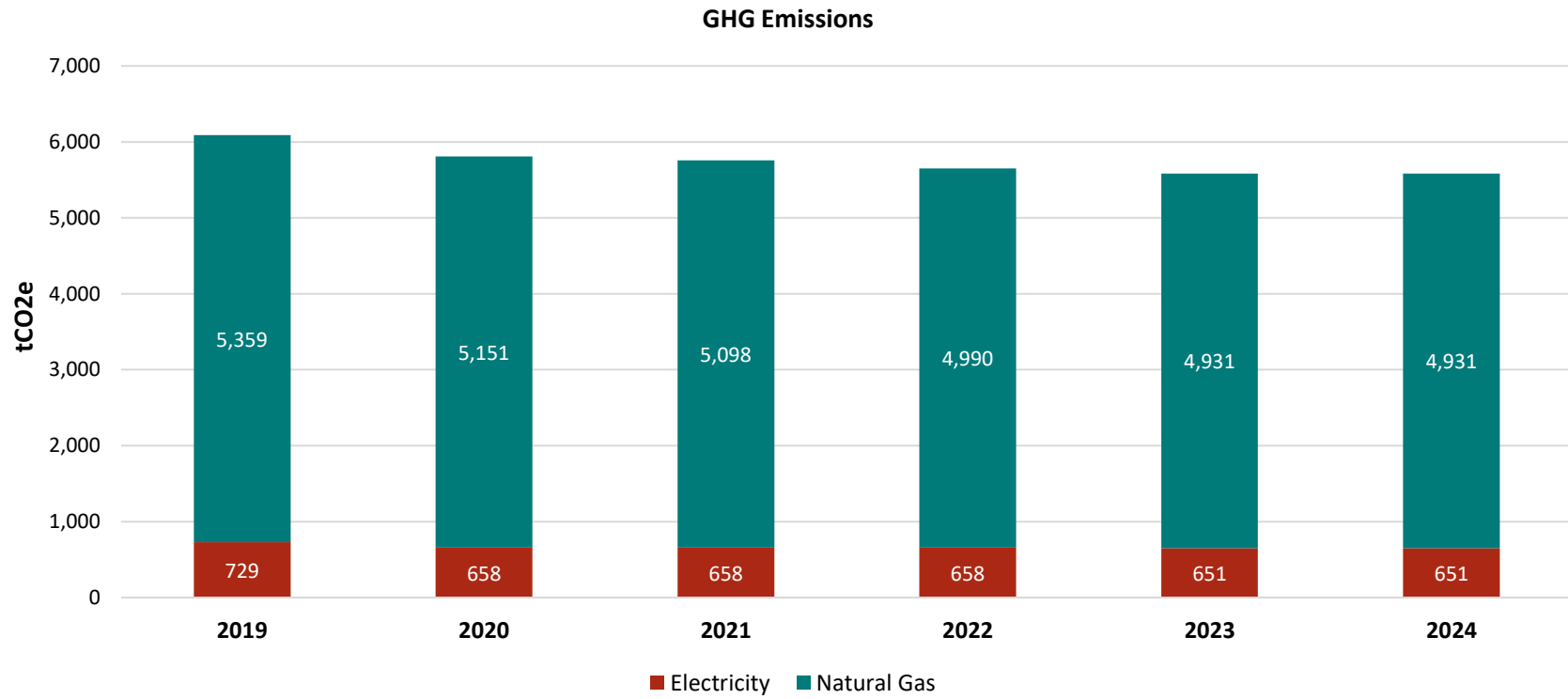


Figure 8. Forecast of Annual Greenhouse Gas Emissions for Metropolitan Campus

4.2. Ouellette Campus



Picture 3. Ouellette Campus

The Ouellette Campus was originally founded in 1888 and has been expanded and renovated many times.

Facility Information	
Facility Name	Ouellette Campus
Facility Type	Healthcare Services
Address	1030 Ouellette Avenue, Windsor, ON
Gross Area (Sq. Ft)	36,250
Average of Operational Hours in a Week	168
Number of Floors	8

Table 10. Ouellette Campus Facility Information

4.2.1. Utility Consumption Analysis

Utilities to the site are electricity and natural gas. The following table summarizes the accounts for each utility. Consumption for each respective utility has been adjusted to fit a regular calendar year (365 days).

Annual Consumption (units)						
Utility	2013	2014	2015	2016	2017	2018
Electricity (kWh)	4,478,057	14,512,889	13,767,193	13,897,889	13,991,752	14,095,690
Natural Gas (m ³)	625,914	1,988,297	1,693,907	1,725,489	1,704,780	1,742,900

Table 11. Historic Annual Utility Consumption for the Ouellette Campus

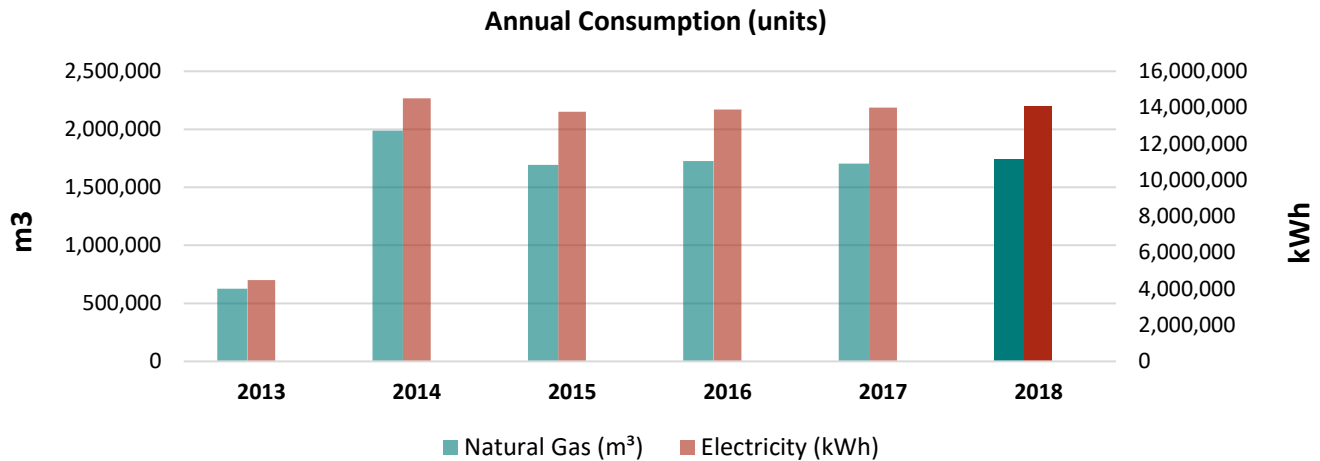


Figure 9. Historic Annual Utility Consumption for the Ouellette Campus

4.2.2. GHG Emissions Analysis

The greenhouse gas emissions are calculated based on the energy consumption data analyzed in the following table.

GHG Emissions (tCO ₂ e)						
Utility Source	2013	2014	2015	2016	2017	2018
Electricity (scope 2)	184	595	564	570	574	578
Natural Gas (scope 1)	1,183	3,758	3,201	3,261	3,222	3,294
Totals	1,367	4,353	3,766	3,831	3,796	3,872

Table 12. Historic Annual Greenhouse Gas Emissions for the Ouellette Campus

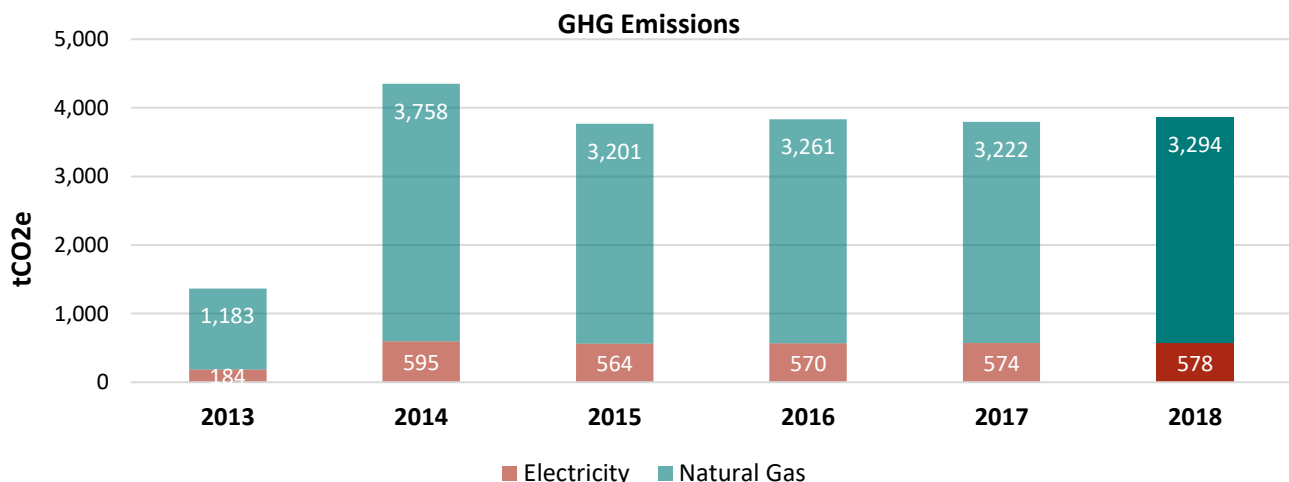


Figure 10. Historic Annual Greenhouse Gas Emissions for the Ouellette Campus

4.2.3. Proposed Conservation Measures

Our energy analysis has revealed several conservation strategies for the facility. The proposed energy saving initiatives are summarized in the table below outlining the targeted utilities. These measures will remain in place until a more efficient and cost-effective technology is found.

Measure	Impacted Utility	Estimated Annual Savings		Simple Payback (years)	Year of Implementation
		kWh	m3		
HVAC Scheduling	Electricity & Natural Gas	375,000	88,000	0.59	2020
Window Replacement	Electricity & Natural Gas	3,524	436	38.35	2021
Steam Trap Survey	Natural Gas	0	45,000	0.42	2022
Install Dual Flush Valve	N/A	0	0	0.00	2023
Chiller Control System Upgrade	Electricity	70,478	0	6.86	2023
Hot Water Heater Upgrade	Natural Gas	0	100,000	1.26	2020
LED Lighting Upgrade	Electricity	133,000	0	4.42	2020
Total		582,002	233,436		

Table 13. Proposed Conservation Measures for the Ouellette Campus

4.2.4. Utility Consumption Forecast

By implementing the energy conservation measures stated in the previous section, the forecasted electricity and natural gas use could be forecasted based on the utility savings generated from individual measures. The forecasted utility consumption is tabulated below. The percentage of change is based off the data from the baseline year of 2018.

Annual Consumption												
	2019		2020		2021		2022		2023		2024	
	Units	% Change	Units	% Change	Units	% Change	Units	% Change	Units	% Change	Units	% Change
Electricity (kWh)	14,095,690	0%	13,587,690	4%	13,584,166	4%	13,584,166	4%	13,513,687	4%	13,513,687	4%
Natural Gas (m ³)	1,742,900	0%	1,554,900	11%	1,554,464	11%	1,509,464	13%	1,509,464	13%	1,509,464	13%

Table 14. Forecast of Annual Utility Consumption for the Ouellette Campus

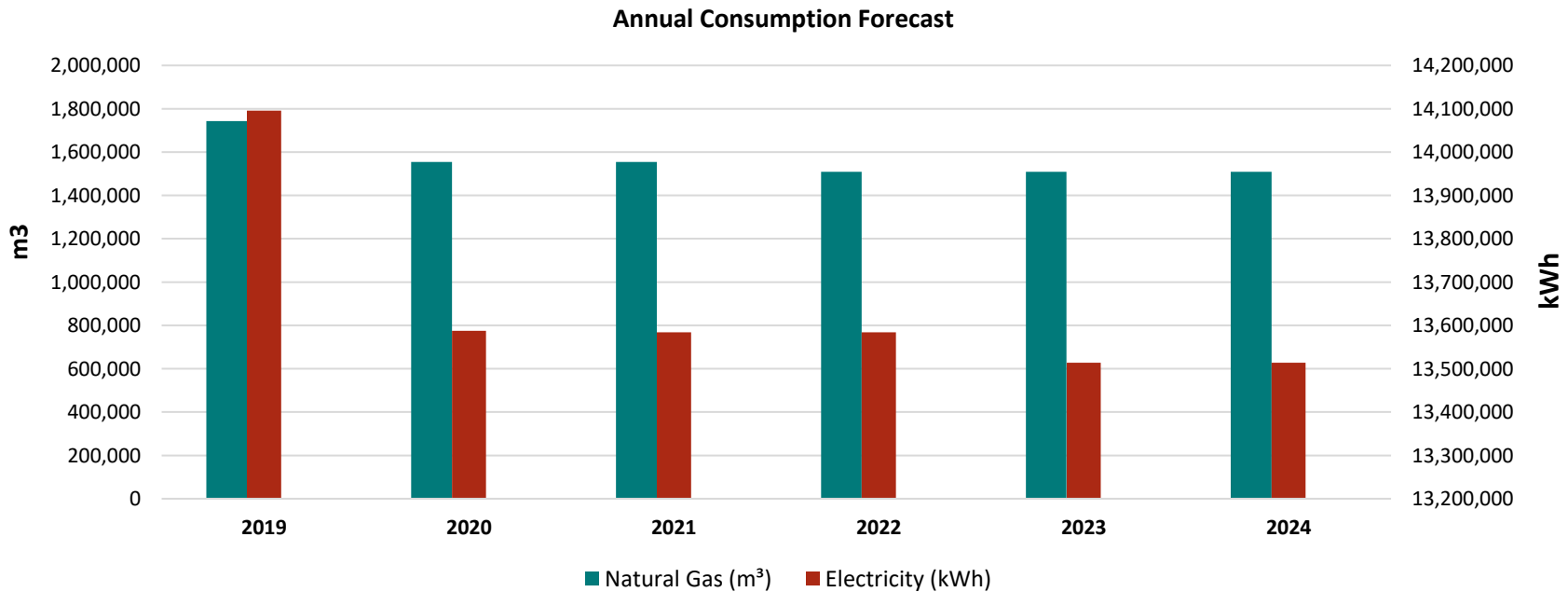


Figure 11. Forecast of Annual Utility Consumption for the Ouellette Campus

4.2.5. GHG Emissions Forecast

The forecasted greenhouse gas emissions are calculated based on the forecasted energy consumption data analyzed in the previous section and are tabulated in the following table. The percentage of reduction is based off the data from the baseline year of 2018.

GHG Emissions (tCO ₂ e)						
Utility Source	2019	2020	2021	2022	2023	2024
Electricity (scope 2)	578	557	557	557	554	554
Natural Gas (scope 1)	3,294	2,939	2,938	2,853	2,853	2,853
Totals	3,872	3,496	3,495	3,410	3,407	3,407
Reduction from Baseline Year (2018)	0.00%	9.71%	9.74%	11.94%	12.01%	12.01%

Table 15. Forecast of Annual Greenhouse Gas Emissions for the Ouellette Campus

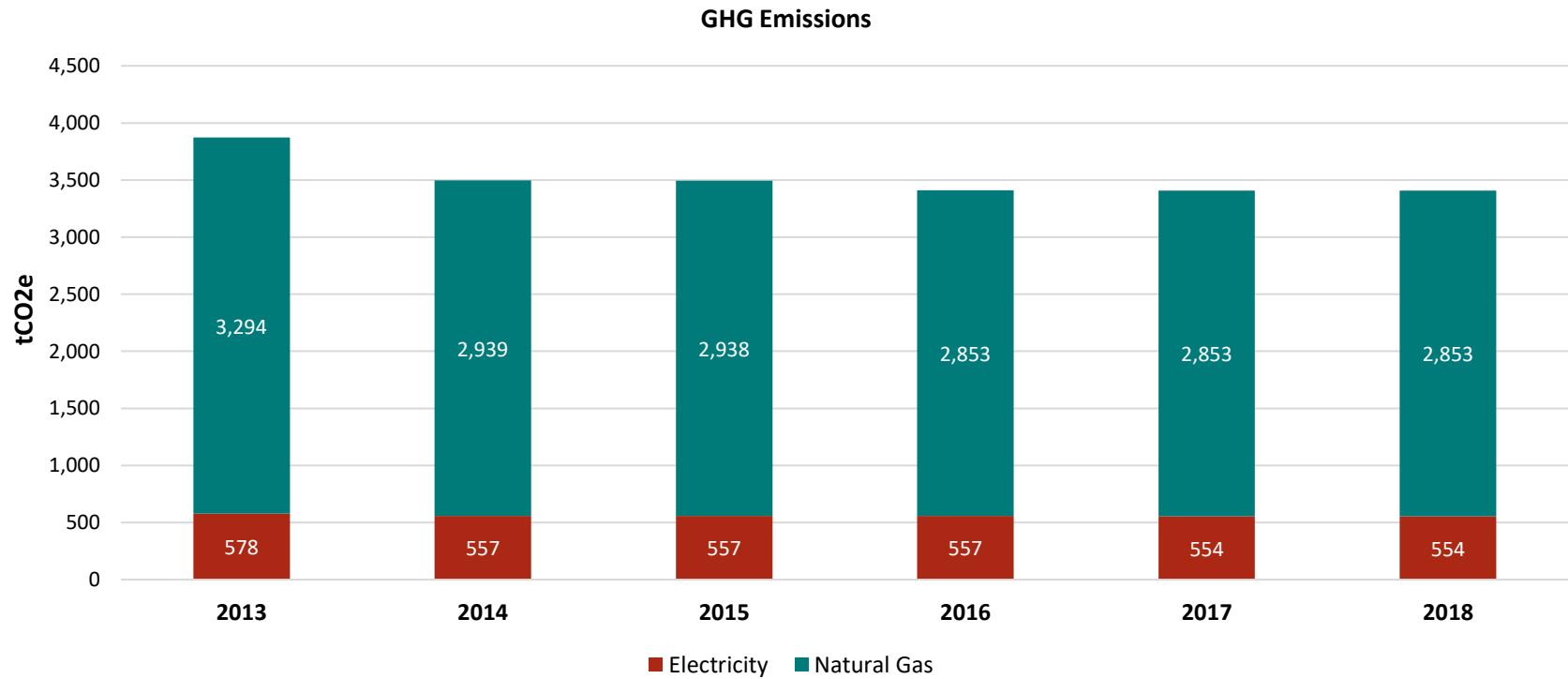


Figure 12. Forecast of Annual Greenhouse Gas Emissions for the Ouellette Campus

5. Site Outlook

5.1. Site-Wide Utility Consumption Forecast

By implementing the energy conservation measures stated in the previous sections, in each respective site, Windsor Regional Hospital’s site-wide projected electricity and natural gas use could be forecasted based on the utility savings generated from individual measures. The site-wide forecasted utility consumption is tabulated below. The percentage of change is based off the data from the baseline year of 2018.

Annual Consumption												
	2019		2020		2021		2022		2023		2024	
	Units	% Change	Units	% Change	Units	% Change	Units	% Change	Units	% Change	Units	% Change
Electricity (kWh)	31,864,397	0%	29,631,397	7%	29,627,874	7%	29,627,874	7%	29,398,073	8%	29,398,073	8%
Natural Gas (m ³)	4,578,375	0%	4,280,375	7%	4,251,585	7%	4,149,875	9%	4,118,269	10%	4,118,269	10%

Table 16. Forecast of Annual Utility Consumption for all Sites

Campus-wide Utility Consumption Forecast

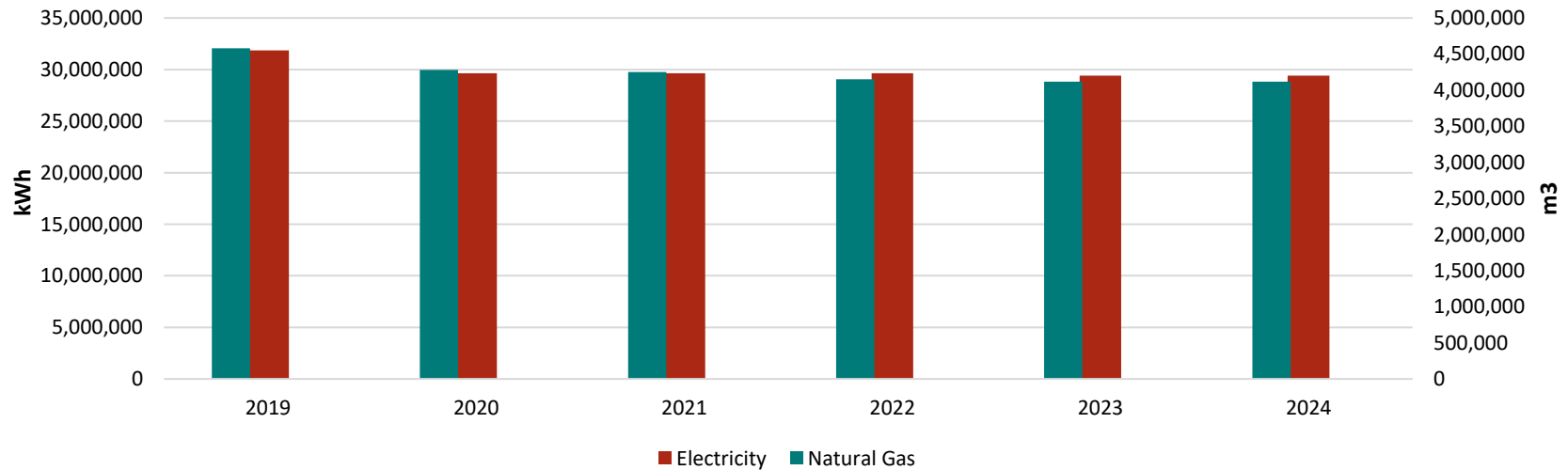


Figure 13. Forecast of Annual Utility Consumption for all Sites

5.2. Site-Wide GHG Emissions Forecast

The site-wide forecasted greenhouse gas emissions are calculated based on the site-wide forecasted energy consumption data analyzed in the previous section and are tabulated in the following table. The percentage of reduction is based off the data from the baseline year of 2018.

GHG Emissions (tCO ₂ e)						
Utility Source	2019	2020	2021	2022	2023	2024
Electricity	1,306	1,215	1,215	1,215	1,205	1,205
Natural Gas	8,653	8,090	8,035	7,843	7,784	7,784
Totals	9,960	9,305	9,250	9,058	8,989	8,989
Reduction from Baseline Year (2018)	0%	7%	7%	9%	10%	10%

Table 17. Forecast of Annual Greenhouse Gas Emissions for all Sites

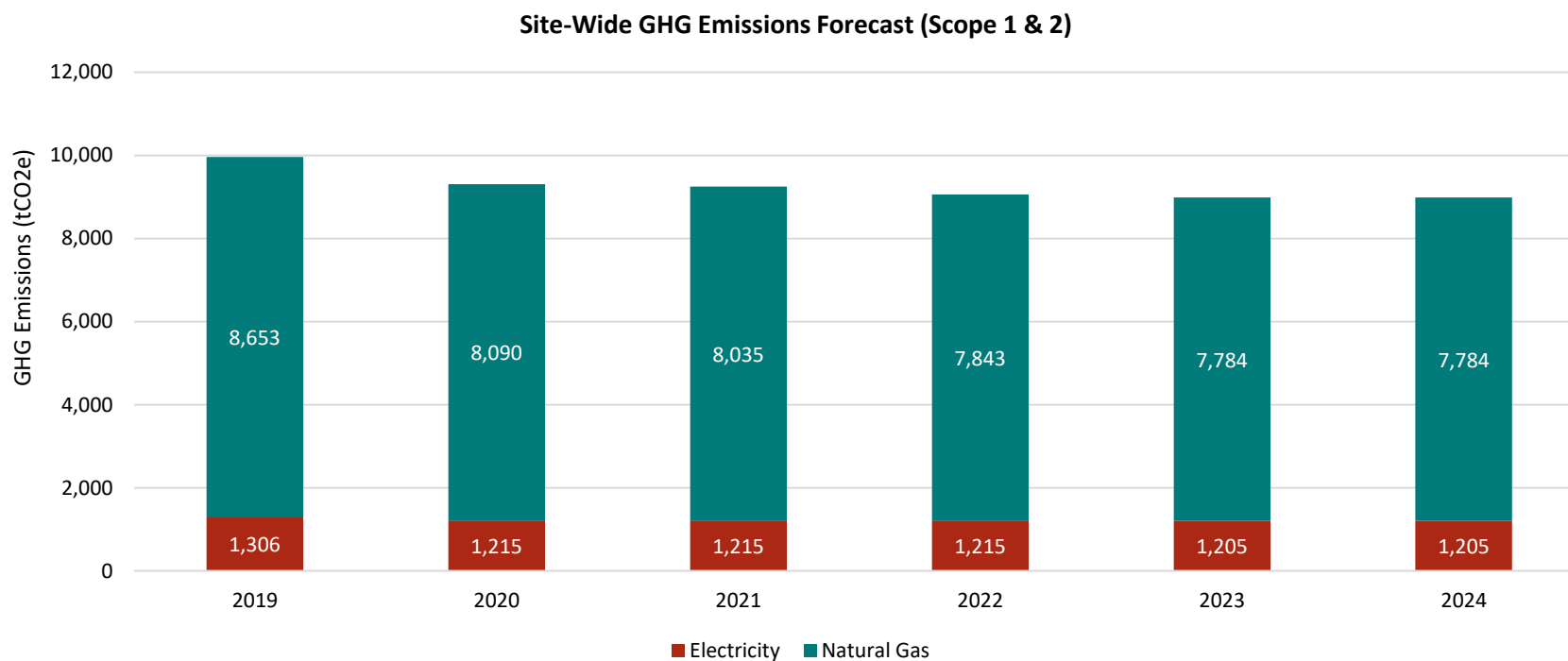


Figure 14. Forecast of Annual Greenhouse Gas Emissions for all Sites

6. Closing Comments

Thank you to all who contributed to Windsor Regional Hospital's Energy Conservation & Demand Management Plan. We consider our facility a primary source of care, and an integral part of the local community. The key to this relationship is being able to use our facilities efficiently and effectively to maximize our ability to provide the highest quality of healthcare services while integrating environmental stewardship into all aspects of facility operations.

On behalf of the senior management team here at Windsor Regional Hospital, we approve this Energy Conservation & Demand Management Plan.

This ECDM plan was created through a collaborative effort between Windsor Regional Hospital and Blackstone Energy Services.

7. Appendix

7.1. Glossary of terms

Word	Abbreviation	Meaning
Baseline Year		A baseline is a benchmark that is used as a foundation for measuring or comparing current and past values.
Building Automation System	BAS	Building automation is the automatic centralized control of a building's heating, ventilation and air conditioning, lighting and other systems through a building management system or building automation system (BAS)
Carbon Dioxide	CO2	Carbon dioxide is a commonly referred to greenhouse gas that results, in part, from the combustion of fossil fuels.
Energy Usage Intensity	EUI	Energy usage intensity means the amount of energy relative to a buildings physical size typically measured in square feet.
Equivalent Carbon Dioxide	CO2e	CO2e provides a common means of measurement when comparing different greenhouse gases.
GHG Protocol		GHG Protocol refers to the recognized international standards used in the measurement and quantification of greenhouse gases.
Greenhouse Gas	GHG	Greenhouse gas means a gas that contributes to the greenhouse effect by absorbing infrared radiation, e.g., carbon dioxide and chlorofluorocarbons.
Metric Tonnes	t	Metric tonnes are a unit of measurement. 1 metric tonne = 1000 kilograms
Net Zero		A net-zero energy building, is a building with zero net energy consumption , meaning the total amount of energy used by the building on an annual basis is roughly equal to the amount of renewable energy created on the site,
Variable Frequency Drive	VFD	A variable frequency drive is a device that allows for the modulation of an electrical or mechanical piece of equipment.

7.2. List of Pictures, Tables and Figures

Pictures

Picture 1. Our Values	4
Picture 2. Metropolitan Campus	9
Picture 3. Ouellette Campus.....	14

Tables

Table 1. Site-Wide Energy Consumption Trends & Projections	3
Table 2. Historic Energy Utilization Indices for all Sites.....	6
Table 3. Historic Greenhouse Gas Emissions for all Sites	8
Table 4. Metropolitan Campus Facility Information.....	9
Table 5. Historic Annual Utility Consumption for Metropolitan Campus.....	10
Table 6. Historic Annual Greenhouse Gas Emissions for Metropolitan Campus.....	10
Table 7. Proposed Conservation Measures for Metropolitan Campus	11
Table 8. Forecast of Annual Utility Consumption for Metropolitan Campus	12
Table 9. Forecast of Annual Greenhouse Gas Emissions for Metropolitan Campus	13
Table 10. Ouellette Campus Facility Information	14
Table 11. Historic Annual Utility Consumption for the Ouellette Campus.....	15
Table 12. Historic Annual Greenhouse Gas Emissions for the Ouellette Campus.....	15
Table 13. Proposed Conservation Measures for the Ouellette Campus	16
Table 14. Forecast of Annual Utility Consumption for the Ouellette Campus	17
Table 15. Forecast of Annual Greenhouse Gas Emissions for the Ouellette Campus	18
Table 16. Forecast of Annual Utility Consumption for all Sites	19
Table 17. Forecast of Annual Greenhouse Gas Emissions for all Sites	20

Figures

Figure 1. Site-Wide Energy Consumption Trends & Projections	3
Figure 2. Historic Annual Energy Utilization Indices for all Sites	6
Figure 3. Examples of Scope 1 and 2	7
Figure 4. Historic Greenhouse Gas Emissions for all Sites	8
Figure 5. Historic Annual Utility Consumption for Metropolitan Campus	10
Figure 6. Historic Annual Greenhouse Gas Emissions for Metropolitan Campus	10
Figure 7. Forecast of Annual Utility Consumption for Metropolitan Campus.....	12
Figure 8. Forecast of Annual Greenhouse Gas Emissions for Metropolitan Campus.....	13
Figure 9. Historic Annual Utility Consumption for the Ouellette Campus	15
Figure 10. Historic Annual Greenhouse Gas Emissions for the Ouellette Campus	15
Figure 11. Forecast of Annual Utility Consumption for the Ouellette Campus.....	17
Figure 12. Forecast of Annual Greenhouse Gas Emissions for the Ouellette Campus.....	18
Figure 13. Forecast of Annual Utility Consumption for all Sites.....	19
Figure 14. Forecast of Annual Greenhouse Gas Emissions for all Sites.....	20