



Town of Kingsville

**5-Year Corporate Energy
Conservation and Demand
Management Plan**

July 2019

Prepared in co-operation with:



Table of Contents

- TABLE OF CONTENTS2**
- INTRODUCTION – EXECUTIVE SUMMARY3**
 - BACKGROUND.....3
 - PURPOSE OF THE PLAN.....3
- 1.0 HISTORIC ENERGY PERFORMANCE5**
 - HISTORICAL ENERGY USAGE5
 - ENERGY CONSERVATION PROJECT SUCCESSES7
- 2.0 ENERGY CONSERVATION AND MANAGEMENT POLICY.....8**
 - OUR COMMITMENT8
 - OUR VISION8
 - OUR GOALS AND OBJECTIVES.....8
 - STRATEGIC ACTION PLAN9
- 3.0 STRATEGY 1: ENERGY MANAGEMENT CORPORATE PRACTICES11**
 - THE ENERGY MANAGEMENT TEAM: ROLES AND RESPONSIBILITIES 11
- 4.0 STRATEGY 2: EDUCATION, AWARENESS AND OUTREACH.....13**
 - ENERGY SKILLS TRAINING PROGRAM..... 13
 - OUTREACH, ENGAGEMENT, RECOGNITION AND ENERGY AWARENESS TRAINING PROGRAM 13
 - FEEDBACK SYSTEM FOR EMPLOYEE SUGGESTIONS 14
- 5.0 STRATEGY 3: ENERGY CONSERVATION ACTIVITIES AND INFORMATION MANAGEMENT15**
 - ENERGY CONSERVATION ACTION PLAN..... 15
 - ENERGY INFORMATION MANAGEMENT 15
- APPENDIX A: ENERGY CONSERVATION ACTION PLAN MEASURES SUMMARY19**

Introduction – Executive Summary

Background

The Town of Kingsville’s Energy Conservation and Demand Management (ECDM) Plan was developed in response to Ontario Regulation 507/18 which requires all public sector organizations to complete an update to their original 2014 ECDM Plan by July 1, 2019. In response to this regulatory requirement, as well as rising energy costs, the Town has developed this Energy Conservation and Demand Management (ECDM) Plan. This comprehensive Plan is an effective method of identifying energy conservation opportunities, selectively implementing the best projects and then measuring their effectiveness. The Plan has been developed to protect the interests of our residents and ensure that the Town of Kingsville obtains the best possible value from our operating budgets. In addition to meeting our regulatory obligations, the Town believes that a strong commitment to energy conservation and a reduction of energy use is demonstrated evidence of our belief in becoming a more sustainable community while operating in a cost-effective manner that respects the value of taxpayer dollars.

Purpose of the Plan

The 5-Year Corporate Energy Conservation and Demand Management Plan is designed to guide the Town of Kingsville towards a more energy-efficient future. The policies, practices and energy conservation measures identified illustrate the importance the Town places on acting responsibly towards energy consumption through the wise use of resources in Town operations.

To enhance our understanding of energy use and return on investment through conservation, this document contains a thorough review of the measures implemented since the creation of the original plan, issued on July 1, 2014. Since then, the Town has initiated several substantial energy projects, yielding significant savings results including:

- HVAC upgrades and retrofits
- Installation of tankless water heaters
- Compressor replacement at the arena

The above projects received utility incentive funding to cover a portion of the costs.

The wise and efficient use of energy are important options for meeting energy rising energy demands. They also provide many other environmental, economic and social benefits, including reducing greenhouse gas (GHG) emissions, cost avoidance and savings. Along with the primary benefits, the responsible use of energy also promotes local economic development opportunities, energy system reliability, improved energy supply security and reduced-price volatility.

Following the path of our previous ECDM Plan, this document is a continuation of a process involving the:

- Integration of establishing and evaluating a baseline for performance to be measured against;
- Reviewing the effectiveness of previous conservation efforts while setting future performance goals and objectives;
- Continuous improvement through identification of energy conservation potential;
- Strategic alignment of improvement measure implementation and fiscal constraints; and,
- Evaluation, measurement and communication of results achieved.

The following report summarizes the significant efforts applied by the Town of Kingsville Energy Conservation Team to create a Plan that can be implemented responsibly, over time, to create lasting results. The Plan takes advantage of internal expertise as well as all available external financial incentives and rebates currently being offered to support the implementation of energy savings ideas. The current energy picture for the Town of Kingsville and our future Vision, Goals and Objectives as shown in the Corporate Energy Conservation and Management Policy, are outlined. Our strategic focus areas are discussed in detail and our 5-year Action Plan is also laid out.

1.0 Historic Energy Performance

Historical Energy Usage

Effectively managing energy requires the creation of a robust energy monitoring strategy, and procedures and establishing an accurate energy baseline is an essential first step in this process. This baseline assists with energy conservation and greenhouse gas reduction target setting, energy procurement and budgeting, bill verification, energy awareness, and the selection and assessment of potential energy projects. The Town of Kingsville, similar to many other municipalities, relies on utility bills to establish this energy baseline.

To evaluate the effectiveness of the Town’s previous energy conservation measures, the year 2013 was chosen as the base year for measurement; this aligns with the Ministry of Energy’s Regulation 507/18 requirements for reporting. Overall, the Town’s consumption in 2013 was 2.8 million kWh of electricity and 259,000 m³ of natural gas. This usage equates to spending \$350,000 for electricity and \$78,000 for natural gas for the year (2013).

The breakdown of energy use by facility type is as follows:

Figure 1-1 – Energy Use by Facility Type in 2013

Facility	Electricity (kWh)	Natural Gas (m3)
Administrative offices and related facilities, including municipal council chambers	135,650	14,846
Ambulance stations and associated offices and facilities	11,393	0
Community centres	118,375	31,958
Facilities related to the pumping of sewage	248,368	0
Facilities related to the treatment of sewage	1,413,501	67,987
Fire stations and associated offices and facilities	65,066	31,563
Indoor ice rinks	689,760	79,791
Police stations and associated offices and facilities	56,720	9,366
Storage facilities where equipment or vehicles are maintained, repaired or stored	86,741	23,533

For comparative purposes, the raw energy consumption breakdowns by year since the original baseline for the Town are as follows:

Figure 1-2 – Electricity Use (2013 – 2017)

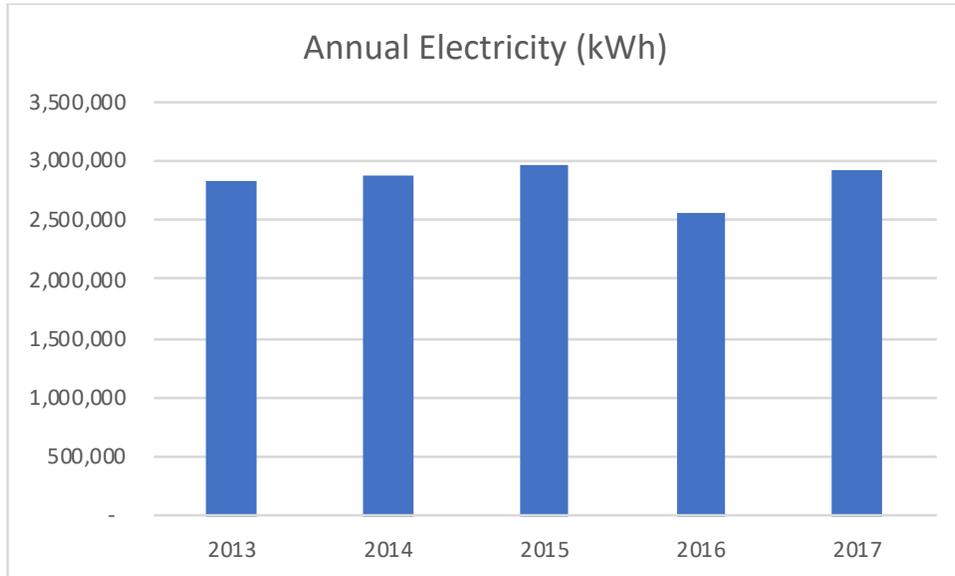
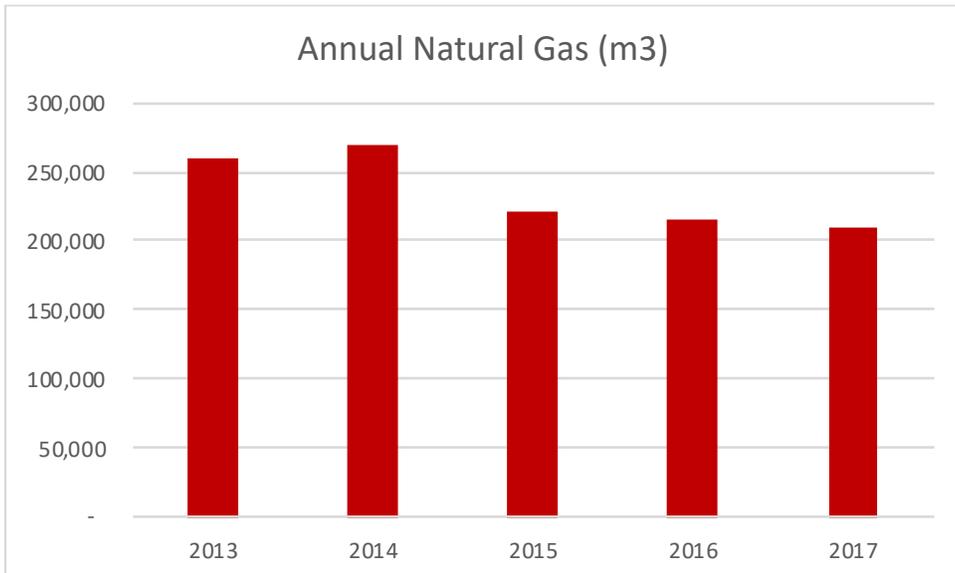
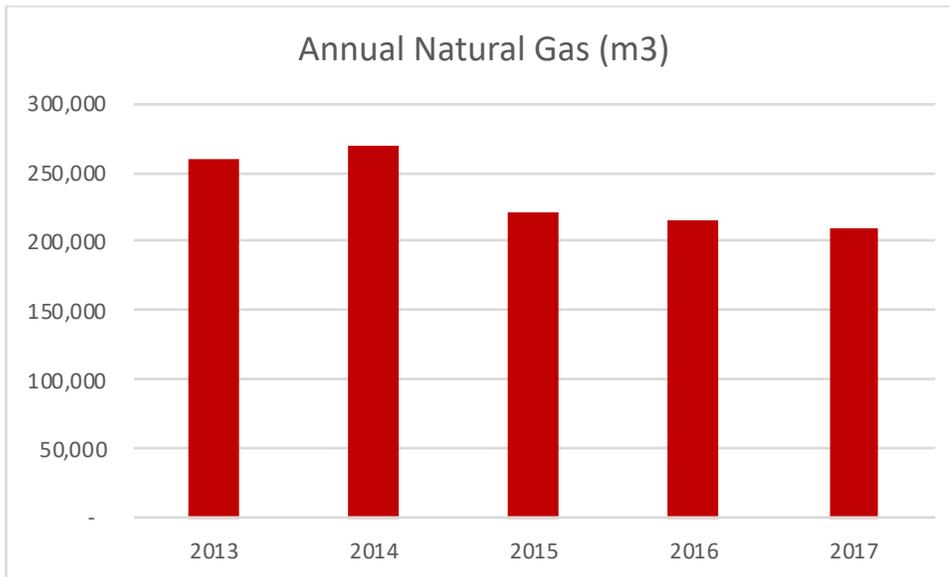


Figure 1-3 – Natural Gas Use (2013 – 2017)



To better understand the Town’s overall energy use, an analysis of ekWh allows for an complete energy comparison (natural gas and electricity together). This is illustrated in the graph below:

Figure 1-4 – Annual ekWh



In the original ECDM Plan, the Town of Kingsville set a target of a 5% reduction in energy consumption over the 5-year term of the Plan (2014-2019). The graph below illustrates that the Town not only met this target but exceeded it with an overall 7,89% reduction in ekWh over the 5-year period when compared to the original base year of 2013. This decrease was largely driven by a 19% reduction in natural gas usage.

Energy Conservation Project Successes

Since the creation of the last 5-Year ECDM Plan, the Town has initiated significant investments in energy efficiency and energy-cost reduction. These projects include:

Facility-Related Projects

Figure 1-5 – Energy Savings Projects (2014 to 2018)

BUILDING	TYPE	LOCATION/DESCRIPTION	YEAR
Kingsville Fire Hall	Water tank	Water tank utility room	2016
	Radiant Heaters (3 total)	3 in the main garage	2015
Unico	Rooftop Furnace/AC	On roof above front doors	2014
	Rooftop Furnace/AC	West unit	2015
Lions Hall	Tankless water heater	Lions Hall utility room	2014
	Rooftop Furnace/AC	Roof - South West Corner	2018
Arena	Compressor #1	Compressor room	2016
Arena	Water tank	Arena outdoor baseball garage	2017
	A/C Condensors	Main auditorium roof	2017
	Water tank	Olympia room	2014
	Tankless water heater	East janitor room	2015
Cottam Library/Daycare	Rooftop A/C	West side on roof	2017

2.0 Energy Conservation and Management Policy

Our Commitment

The Town of Kingsville is committed to allocating the necessary resources to develop and implement a strategic Energy Conservation and Demand Management (ECDM) Plan to reduce energy consumption and its related environmental impact. As an organization, we value the notion of efficient operations and creating a more sustainable community.

We are committed to managing energy responsibly and will use energy efficiency practices throughout all our facilities, fleet, operations and equipment wherever it is cost effective and we are able to secure funding to do so.

Our Vision

The Town of Kingsville endeavours to minimize energy consumption, related costs, and carbon emissions by continuously improving its energy management practices without compromising the level of service delivery to the community.

Our Goals and Objectives

As part of our 2019 ECDM Plan, the Town created several strategic avenues to achieve specific goals and targets with regards to energy management. We have re-examined our past objectives and are re-committing to this updated version.

1. Reduce energy intensity in Town facilities by 5% by 2024. This is in addition to the reduction achieved between 2013 and 2018.
2. Enhance our culture of conservation through training and outreach to staff, clients and business partners. Through this training Town employees will have the appropriate knowledge and training to be empowered to reduce energy consumption.
3. Expand upon our comprehensive corporate energy management policy and practices by enhancing key existing business practices to include energy efficiency standards and energy management best practices.
4. Expand our monitoring and tracking program for energy use by providing access to our energy management system to make energy consumption visible to everyone in the corporation and support facility/management decision-making.
5. Deliver energy cost savings through the identification and implementation of processes, programs and projects that will reduce energy consumption.

- Re-assess and benchmark the top energy consuming facilities in the Town. (2019)
- Review previously identified energy savings opportunities through review of past energy audits and plan to renew energy audits and analysis of the capital asset renewal program. (Ongoing)
- Review and/or enhance standard operating and maintenance procedures to include energy conservation best practices. (Ongoing)
- Seek funding for energy-related projects from various sources to enhance the payback and reduce implementation costs. (Ongoing)

Strategic Action Plan

To achieve our new ECDM Plan, the Town will employ three strategic actions designed to ensure a positive outcome over the next 5 years. These key strategies support the delivery of our Goals and Objectives.

Strategy 1. Corporate Practices

Develop Corporate policies and practices to support our energy conservation effort and show leadership and commitment within the community.

- Energy Management Team: Roles, Responsibilities and Accountability
- Energy Procurement

Strategy 2. Education, Awareness & Outreach

Provide the guidance, leadership and framework necessary to empower employees and develop a culture of conservation.

- Energy Skills Training Program
- Energy Awareness Training
- Outreach, Engagement and Recognition Programs
- Feedback System for Employee Suggestions
- Employee Brainstorming Sessions

Strategy 3. Energy Conservation Action Plan and Energy Information Management

Continually identify and deliver energy conservation processes, programs and projects in all areas of the Town (facilities, fleet, equipment, water plants etc.). Demonstrate sound operating and maintenance practices to complement the energy efficiencies implemented through the capital asset renewal program. Employ a robust Energy Information Management System to ensure that all conservation activities are measured and verified to ensure the Town receives and maintains specified energy reductions and savings.

Energy Conservation Action Plan

- Key facility energy audits and re/retro-commissioning studies
- Asset renewal plan and energy conservation project delivery
- Standard facility operations procedure review

Energy Information Management

- Maintenance of the online energy monitoring and reporting system (electricity, natural gas and fuels)
- Regular Energy Use Review presentations for the community, council, accountable staff and energy users
- Energy bill verification and rate optimization
- Reporting requirements for Regulation 507/18 (formerly 397/11)
- Consistent update and review of key performance indicators (KPIs)/benchmarking
- Standardize and implement project measurement and verification

3.0 STRATEGY 1: Energy Management Corporate Practices

The Town of Kingsville has implemented essential corporate practices, including key personnel deployment, to ensure a strong focus on energy management and savings. These efforts remain a key component of our renewed ECDM Plan.

The Energy Management Team: Roles and Responsibilities

Energy Sponsor: Director of Municipal Services

The Energy Sponsor is ultimately responsible for creating budgets, securing spending authority and resources for the program. This role is responsible for setting and/or legitimizing the program's high-level goals and objectives, keeping track of major project activities and approving resources and funding for the team and its approved projects.

Energy Champion: Manager of Municipal Services

The Energy Champion has direct knowledge of the Town's major energy-using systems and is responsible for developing and maintaining the focus for the Energy Management Team. The Energy Champion coordinates meetings, sets agendas, and delegates and manages tasks related to the Energy Management Team. This role also helps create the vision for the program and will help the program maintain momentum, particularly when barriers arise. The Energy Champion is also responsible for ensuring that the monitoring and tracking systems for energy are accurate, up-to-date and available for use by Town employees.

Energy Project Champion: Manager of Municipal Facilities and Properties

The Energy Project Champion should have a technical background and is responsible for supporting and reporting on the technical aspects of the energy projects at all facilities. This role may also lead energy conservation projects as the project manager.

Energy Management Team

The Corporate Energy Management Team functions on a strategic level to set expectations for each of the Town facilities, develops metrics for tracking overall energy improvement, and build accountability for energy management activities. In addition, this cross-functional team has direct responsibility for the consumption of energy within their respective departments. As a group, the team supports and monitors the energy management initiatives (processes, programs, and projects) at the various facilities and across the Town.

Actions: Continue to seek cross-departmental membership and support for the Energy Management Team. Continue to meet to discuss the Energy Management Program to ensure implementation of new savings ideas as well as maintain the positive momentum built over the past 5 years.

Energy Procurement

The Town continues to utilize the energy procurement service provided by Local Authority Services (LAS). This program provides options for fixed-price energy procurement services, permitting the Town to maintain predictable electricity and

natural gas commodity costs. The program also permits the Town to work together with a large number of other municipal entities throughout the province to create bulk-buying power to leverage aggregated energy purchasing opportunities.

Actions: Continue to review the LAS program annually and evaluate the Town's level of participation. Review potential alternative programs for merit and analyze the net result of Town participation annually.

4.0 STRATEGY 2: Education, Awareness and Outreach

The Town's Education, Awareness and Outreach program will provide guidance, leadership and the framework to empower employees and foster our culture of conservation. The program informs the organization of current energy use, operational practices as well as improvement opportunities, while ensuring that all Town of Kingsville employees have an opportunity to remain informed of the Town's energy reduction efforts. This continued practice will foster the greatest possible impact of education and awareness. This will be achieved by raising the level of awareness, understanding and general knowledge amongst staff regarding energy spending, usage and conservation.

The Town will utilize a successful combination of program engagement, direct awareness marketing and hands-on training to enhance our energy reduction efforts to support the achievement of our energy conservation goals and objectives. As well, energy will continue to be a regular agenda item at staff meetings to solicit new ideas for reduction of energy use, promote continued awareness of the cost of energy and ensure that energy conservation remains a key consideration for all Town employees.

The program is comprised of the following four focus areas:

Energy Skills Training Program

The Energy Skills Training Program is a vehicle for Town employees to continue to develop a general awareness and understanding of current energy use within Town facilities as well as skills to identify opportunities for improvement. The Training Program combines both general knowledge training and hands-on experience to gain maximum benefit.

Employee Brainstorming Sessions are an important part of the Energy Skills Training Program and are encouraged during the Energy Team meetings as a way of generating new ideas for energy conservation. As regular users and managers of Town facilities, our employees are one of our most valuable resources to both generate and implement our energy conservation strategies.

Outreach, Engagement, Recognition and Energy Awareness Training Program

The Town will engage all users of Town facilities (both staff and the general public) and recognizes that this is essential to the continued success of the energy management program. Our energy program will continue to employ a comprehensive approach to both engaging employees and recognizing the efforts of staff who provide important support and ideas.

The Energy Awareness Training Program will provide consistent energy conservation messaging throughout all departments using Community-Based Social Marketing (CBSM) techniques to engage all users of Town facilities. Specific methods used to date include conservation tips, eye-catching posters and other relevant marketing tools. It is the intention of this Plan to expand our ability and

focus to enable the Town to become a 'clearinghouse' of information for residents to discover ideas and incentives to improve their own energy usage practices.

Feedback System for Employee Suggestions

The Town of Kingsville will create and employ a feedback system to encourage employees to provide input and ideas. Suggestions will be sent to a specific address and forwarded to members of the Energy Management Team in order to ensure prompt response. The Energy Team members can engage relevant employees to ensure that all ideas are captured and explored.

Actions: Review available energy training opportunities both generally (i.e. all staff) and for specific departments. Establish and maintain at least annual Outreach and Engagement efforts to keep energy conservation 'top-of-mind' for staff and stakeholders.

5.0 STRATEGY 3: Energy Conservation Activities and Information Management

Energy Conservation Action Plan

The Energy Conservation Action Plan forms the blueprint for implementing energy conservation and cost saving measures. The Town has created a list of potential projects based on previous facility energy audits. The attached action plans have been created to guide this process based on a prioritized implementation schedule. All available incentives and funding sources will be explored to minimize the implementation cost of each measure. In addition to the measures shown, the Town anticipates that further energy audits, completed over the next 5 years, will augment the list of available energy conservation measures.

Appendix A shows an implementation strategy for our proposed measures. In all, these projects include:

- Lighting retrofits
- BAS upgrades
- Appliance replacements
- Building envelope and roofing improvements

Additional measures will be added as funding becomes available on an annual basis. In general terms, our actions are expected to yield the following results:

- Education, Awareness and Outreach: 1-2% annual energy savings
- On-going regular reviews of consumption and baselines: 0.5 to 1% annual energy savings
- Re/retro Commissioning: 2-7% annual energy savings within the facilities where it is implemented (estimated to be 1 to 2% overall potential total annual savings)

Actions: Maintain a schedule of energy audit renewals to ensure that our list of measures is up-to-date and that previous measures are still functional and providing savings. Perform periodic reviews of available incentives and stay up-to-date on potential sources of funding to offset the implementation costs of the proposed future measures. Review the list of measures at least annually and update as necessary.

Energy Information Management

Online Energy Monitoring and Reporting System

The Town of Kingsville has implemented a system for managing and reporting on its energy consumption (electricity, natural gas, fuels). The motivation for this effort is the notion that “you can’t manage what you are not aware of”. By making our energy usage visual, and keeping the information up-to-date, all personnel with access to the information can benefit from understanding the nature of energy use in their facilities, as well as the impact their actions or inactions have on the Town’s overall energy cost and budgeting. This information is also key in evaluating the

potential of new conservation projects as well as measuring the effectiveness of initiatives already taken.

Actions: Continue to gather and upload energy data into the Energy Information Management System regularly and analyze the data for patterns and savings opportunities.

Energy Management Presentations for the Community, Council, Accountable Staff and Energy Users

To gain traction for the initiatives within this Plan and ensure that the Town reaches its stated reduction targets, it is imperative that information regarding energy usage and cost, as well as the Town’s energy conservation plans and projects, are well understood and top of mind of everyone from front-line employees to senior department heads and Town Council. This broad awareness will lead to additional buy-in and support for the Town’s continued efforts to reduce its energy usage and spending.

Actions: Make energy a key topic at staff and senior management meetings as well as provide an update on energy use and conservation to Town Council at least annually.

Key Performance Indicators (KPI’s) and Monitoring and Verification

To ensure momentum continues, and the Town receives value-for-money with regards to its energy conservation efforts, a rigorous program of establishing KPI’s and then monitoring and verifying ongoing savings is an essential element of this Plan. By establishing agreed upon KPI’s (as suggested in the table below) and then performing regular and frequent monitoring, not only will Town personnel be able to verify that savings expected from various projects is achieved, but that the savings continue for the duration of the project or retrofit’s useful life. This practice will protect the Town’s investments as well as provide transparency and support for successful savings initiatives.

Figure 5.1 – KPI Suggestions

Facility Type	Energy KPIs	Measured Variables
Cultural Facilities, Indoor Recreational Facilities and Community Centres	Baseline Electricity (Summer/Winter/Shoulder Season) <ul style="list-style-type: none"> • kWh / month • Peak kW / month Baseline Natural Gas <ul style="list-style-type: none"> • m³ / month Other Energy Sources	<ul style="list-style-type: none"> • Daily Weather • Occupancy Rates / month • Sheet rentals / month
Facilities Related to Treatment or Pumping of Water or Sewage	Baseline Electricity (Summer/Winter/Shoulder Season) <ul style="list-style-type: none"> • kWh / month • Peak kW / month Baseline Natural Gas <ul style="list-style-type: none"> • m³ / month Other Energy Sources	<ul style="list-style-type: none"> • Daily Weather (Temperature and Rainfall) • m³ treated water or waste water / day

Administrative Offices	Baseline Electricity (Summer/Winter/Shoulder Season) <ul style="list-style-type: none"> • kWh / month • Peak kW / month Baseline Natural Gas <ul style="list-style-type: none"> • m³ / month Other Energy Sources	<ul style="list-style-type: none"> • Daily Weather
Public Libraries	Baseline Electricity (Summer/Winter/Shoulder Season) <ul style="list-style-type: none"> • kWh / month • Peak kW / month Baseline Natural Gas <ul style="list-style-type: none"> • m³ / month Other Energy Sources	<ul style="list-style-type: none"> • Daily Weather • Occupancy
Fire Stations and Associated Offices	Baseline Electricity (Summer/Winter/Shoulder Season) <ul style="list-style-type: none"> • kWh / month • Peak kW / month Baseline Natural Gas <ul style="list-style-type: none"> • m³ / month Other Energy Sources	<ul style="list-style-type: none"> • Daily Weather • Occupancy
Storage Facilities	Baseline Electricity (Summer/Winter/Shoulder Season) <ul style="list-style-type: none"> • kWh / month • Peak kW / month Baseline Natural Gas <ul style="list-style-type: none"> • m³ / month Other Energy Sources	<ul style="list-style-type: none"> • Daily Weather
Street Lighting	Electricity	<ul style="list-style-type: none"> • Number of Lights
Recreation and Outdoor Lighting	Baseline Electricity (Summer/Winter/Shoulder Season) <ul style="list-style-type: none"> • kWh / month • Peak kW / month 	<ul style="list-style-type: none"> • Occupancy or Rentals / Month • Opening / Closing Dates
Fleet	Baseline Diesel Use Baseline Gasoline Use	<ul style="list-style-type: none"> • Number of Vehicles • km driven / month

Actions: Review all conservation initiatives to understand the most appropriate monitoring and verification process. Review the project savings at pre-defined regular intervals and report outcomes to senior management/Council.

Bill Verification and Rate Optimization

A consistent, periodic review of the Town’s energy invoices is important to ensure that rates and recorded consumption values on energy bills is accurate. This ensures that the invoices presented by utilities are correct and are providing appropriate and relevant data to the Town’s Energy Management Platforms.

Actions: Perform a rationalization check on monthly invoices and conduct at least annual detailed billing reviews to ensure accuracy.

Ongoing Ontario Regulation 507/18 Reporting

In addition to completing this Plan, the Town of Kingsville is required to submit annual energy consumption and greenhouse gas emissions templates to the

appropriate Ministry of Energy portal. Gathering and recording monthly energy invoices are necessary to complete these reports.

Actions: Complete all required regulatory reporting by July 1 of each year.

**APPENDIX A: Energy Conservation Action Plan Measures
Summary**

EMS #	Facility	Opportunity	Electricity (kWh/Yr)	Electricity Demand (kW/Yr)	Natural Gas (m ³ /Yr)	Water (m ³ /Yr)	Electricity (\$0.11/kWh)	Demand (\$0/kW)	Natural Gas (\$0/m ³)	Water (\$3.03/m ³)	Total Savings	Cost	Incentives	Cost with Incentives	Payback Period with Incentives (years)	Total Energy Savings (GJ/Yr)	TCO _{2e} Savings
E01	Rec. Complex	T8 / CFL / Incandescent - Lamp Replacement	29,493	10.02	0	0	\$4,244	\$146	\$0	\$0	\$4,390	\$30	\$0	\$30	0	100.66	6.58
E02	Rec. Complex	MH 150W & 70W Fixture Replacement with LED	2,508	1.66	0	0	\$361	\$24	\$0	\$0	\$385	\$3,500	\$665	\$2,835	7.4	8.56	0.56
E03	Rec. Complex	T12 - Lamp Replacement	1,472	0.92	0	0	\$212	\$13	\$0	\$0	\$225	\$1,100	\$374	\$726	3.2	5.02	0.33
E04	Rec. Complex	Replace Tower MH 1500W & 1000W Lighting with LED	21,897	114.05	0	0	\$3,151	\$1,663	\$0	\$0	\$4,814	\$112,500	\$45,618	\$66,882	13.9	74.73	4.88
E05	Rec. Complex	Water Cooler - Energy Star Replacement	3,809	1.32	0	0	\$548	\$19	\$0	\$0	\$567	\$50	\$25	\$25	0	13	0.85
E06	Rec. Complex	Replace Older Exhaust Fans with High Efficient Motors	1,409	0.73	0	0	\$203	\$11	\$0	\$0	\$213	\$5,000	\$587	\$4,413	20.7	4.81	0.31
E07	Rec. Complex	Direct Digital Control BAS System	24,757	11.69	22,861	0	\$3,563	\$170	\$5,724	\$0	\$9,458	\$143,000	\$9,353	\$133,647	14.1	97.33	6.82
E08	Rec. Complex	Replace NON-Energy Star Appliances	5,468	0.76	0	0	\$787	\$11	\$0	\$0	\$798	\$10,000	\$608	\$9,392	11.8	18.66	1.22
E09	Rec. Complex	Replace Hand Dryers with High Efficient Ones	1,161	12.23	0	0	\$253	\$178	\$0	\$0	\$432	\$6,000	\$0	\$6,000	13.9	6.01	0.39
F01	Rec. Complex	Domestic Water Heater Rotation/ Shut Down	0	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0	0	0
F02	Rec. Complex	Replace Existing Aged Original Boiler	585	0.81	3,137	0	\$84	\$12	\$786	\$0	\$882	\$10,000	\$1,000	\$9,000	10.2	3.76	0.13
F03	Rec. Complex	Replace Original Aged Existing Furnaces	3,327	0.53	2,841	0	\$479	\$0	\$711	\$0	\$1,190	\$20,000	\$1,000	\$19,000	16	12.95	0.74
B01	Rec. Complex	Energy and Resource Awareness	10,685	3.01	1,074	62	\$1,538	\$44	\$269	\$52	\$1,902	\$6,000	\$2,400	\$3,600	1.9	37.07	5.31
B02	Rec. Complex	Utility Analysis	7,124	2.01	716	0	\$1,025	\$29	\$179	\$0	\$1,234	\$1,500	\$0	\$1,500	1.2	24.71	3.54
E01	Lions Hall	Replace T12s with T8s									\$16/Fixture Above	\$100/Fixture					
E02	Lions Hall	Replace aged gas water heater in mechanical room and pipe others to new unit and remove electrical DMHS									\$12,700	\$40,000					
E03	Lions Hall	Remove wall penetration and seal properly									\$150	\$2,000					
E01	OPP Station	Replace boiler with new high efficiency boiler									\$2,000	\$20,000					
E03	OPP Station	Repair leaking piping									\$200	\$100					
E04	OPP Station	Repair condensate drain									\$20	\$200					
E03	Fire Station	Replace with high efficiency exhaust fans									\$200	\$2,000					
E04	Fire Station	Replace with high efficiency infrared heaters															
		GRAND TOTAL	114,294	160	30,629	62	\$16,447	\$2,322	\$7,670	\$52	\$26,490	\$318,680	\$61,630	\$257,050	9.7	407.28	92.66