ENERGY CONSERVATION AND DEMAND MANAGEMENT PLAN

2025-2029

Introduction

Laird is a small rural Municipality with a population of approximately 1,047 persons and consists of 5 full-time staff and 10 part-time/seasonal staff. The Municipality of Laird has been committed to corporate energy management since the early 2000s.

In 2012, the Municipality submitted its first Corporate Energy Conservation and Demand Management (CDM) Plan to the Ontario Ministry of Energy in compliance with the former Ontario Regulation 397/11 Green Energy Act, replaced by the former Ontario Regulation 507/18 Electricity Act, and again replaced by the current Ontario Regulation 25/23 made under the Electricity Act, 1998.

Ontario Regulation 25/23: Broader Public Sector: Energy Reporting and Conservation and Demand Management Plans require Broader Public Sector (BPS) organizations to develop an Energy Conservation and Demand Management (CDM) plan and update it every five years. Our updated CDM plan was developed in compliance with the regulation and covers the period from 2025 to 2029. Council approved the plan on June 27, 2024.

Our updated CDM plan builds on the municipality's previous conservation and demand management efforts as outlined in past plans found here CDM 2019. This updated plan also continues to build on experience gained in energy conservation and demand management over the last five years. In addition, this update supports our transportation and fleet asset plans, and incorporates our emissions reductions plans.

Hard copies of the CDM plan are available at the municipal officer at 3 Pumpkin Point Road West.

Required Elements of the Plan are:

1. Information on the Municipalities annual **ENERGY CONSUMPTION** during the last year for which complete information is available for the full year compared to baseline.

2. The **GOALS, OBJECTIVES, AND TARGETS** of the Municipality to conserve and reduce energy consumption.

3. The Municipalities proposed **MEASURES AND PLAN FOR COST SAVINGS** (estimates), proposed measures and the estimated length of time these measures will be in place.

4. A report on any **RENEWABLE ENERGY GENERATION FACILITY** operated by the Municipality. (NOT APPLICABLE)

Energy Consumption

Reporting Year: 2021

Facilities included in this report:

Municipal Office

The Municipal office is heated with Furnace Oil and has fluorescent lighting.
1440 sq feet
40 hours per week

Performance Comparison	2016	2021	% Change
Electricity Use – Grid Purchase kWh	9,322.0	10,452.1	12.10
GHG Emissions (Metric Tones CO2e)	0.4	0.3	-25
Site EUI (kBtu/ft^2)	22.1	24.8	12.1
Source EUI (kBtu/ft^2)	40.4	45.3	12.1

Municipal Garage

The Municipal Garage is heated with Furnace Propane and has fluorescent lighting.
4336 sq. feet
40 hours per week

Performance Comparison	2016	2021	% Change
Electricity Use – Grid Purchase kWh	10,167	8521	-16.20
GHG Emissions (Metric Tones CO2e)	0.4	0.2	-50
Site EUI (kBtu/ft^2)	8	6.7	-16.2
Source EUI (kBtu/ft^2)	14.6	12.3	-16.2

Laird Township Community Hall

Municipal Community Hall is heated with Furnace Propane and has Florescent Lights
2616 sq feet
15 hours per week

Performance Comparison	2016	2021	% Change
Electricity Use – Grid Purchase kWh	8,846	7,206	-18.50
GHG Emissions (Metric Tones CO2e)	0.4	0.2	-50
Site EUI (kBtu/ft^2)	11.5	9.4	-18.5
Source EUI (kBtu/ft^2)	21.1	17.2	-18.5

Bar River Community Hall

Municipal Community Hall is heated with Furnace Propane and has Florescent Lights
2,924 sq feet
15 hours per week

Performance Comparison	2016	2021	% Change
Electricity Use – Grid Purchase kWh	10,175	9,424	-7.40
GHG Emissions (Metric Tones CO2e)	0.4	0.3	-25
Site EUI (kBtu/ft^2)	11.9	11	-7.4
Source EUI (kBtu/ft^2)	21.7	20.1	-7.4

G.W. Evoy Rink

Municipal Community rink is heated with Furnace Propane and has Florescent Lights
2016 sq feet
30 hours per week (seasonally)

Performance Comparison	2016	2021	% Change
Electricity Use – Grid Purchase kWh	4,629	5,061	9.30
GHG Emissions (Metric Tones CO2e)	0.2	0.1	-50
Site EUI (kBtu/ft^2)	7.8	3.6	-53.8
Source EUI (kBtu/ft^2)	14.3	6.6	-53.8

Goals, Objectives, and Targets

Our goal is to position the Municipality with an energy management strategy that aligns with the provincial target to reduce levels of GHG emissions 30% from 2005 levels by 2030. The municipality will strive to continuously reduce energy consumption and manage demand to reduce energy costs and contribute to an efficient transition of the energy system. We are committed to creating new partnerships and working with other BPS organizations to better manage energy use across community.

Municipal Office

The objective is to be energy efficient and operate cost-effectively while continuing to provide services and meet the needs of the residents.

Goals are:

- To have routines in place to reduce overall energy consumption in off-peak periods;
- To seek funding and/or create a reserve to fund efforts to increase the energy efficiency of the building and operations contained therein;
- To consider the validity and accessibility of technology to reduce the consumption energy.

Target:

- Reduce overall energy consumption of facilities by 5% over five years (2025-2029) and by 30% by 2035.

Municipal Garage

The objective is to be energy efficient and operate cost-effectively while ensuring service provision for roads and facilities, and meeting the needs of residents.

Goals are:

- To have routines in place to reduce overall energy consumption in off-peak periods;
- To seek funding and/or create a reserve to afford to increase the energy efficiency of the building and operations contained therein;
- To consider the validity and accessibility of technology to reduce energy consumption.

Target:

- Reduce overall energy consumption of facilities by 2.5% over five years (2025-2029) and by 30% by 2035.
- Reduce fuel consumption by budgeting for a hybrid/electric vehicle over the next five years (2025-2029) to transition at least 25% of the fleet to hybrid/electric by 2035.

Laird Township Community Hall

The objective is to be energy efficient and cost-effective while at the same time meeting needs of the Municipality.

Goals are:

- To have routines in place to reduce energy consumption in off-peak periods;
- To seek funding and/or create a reserve to afford to increase the energy efficiency of the building;
- To consider the validity and accessibility of technology to reduce consumption of energy.

Target:

- Reduce overall energy consumption of facilities by 2% over five years (2025-2029) and by 30% by 2035.

Bar River Community Hall

The objective is to be energy efficient and cost-effective while at the same time meeting needs of the Municipality.

Goals are:

- To have routines in place to reduce energy consumption in off-peak periods;
- To seek funding and/or create a reserve to afford to increase the energy efficiency of the building;
- To consider the validity and accessibility of technology to reduce energy consumption.

Target:

- Reduce overall energy consumption of facilities by 3% over five years (2025-2029) and by 30% by 2035.

G.W. Evoy Rink

The objective is to be energy efficient and cost-effective while at the same time meeting needs of the Municipality.

Goals are:

- To have routines in place to reduce energy consumption in off-peak periods;
- To seek funding and/or create a reserve to afford to increase the energy efficiency of the building;
- To consider the validity and accessibility of technology to reduce energy consumption.

Target:

- Reduce overall energy consumption of facilities by 5% over five years (2025-2029) and by 30% by 2035.

Measures and Plan for Cost Savings

Municipal Office

Technical Measures: In 2003 our new Administrative Building was constructed. Since then, energy consumption has been very low. Annual monitoring of consumption takes place. Measures are in place to keep consumption low and the Municipality will investigate if consumption increases considerably.

Organizational Measures: There is no new construction in the foreseeable future, however, if there was to be it is the position of the Municipality to seek the highest, most affordable and practical options in construction and equipping to meet energy

conservation and efficiencies targets. This may include hiring local contractors and using local supplies to reduce the footprint created by shipping and importing goods, services, or labour.

Behavioral Measures: All of staff are involved in the budgeting process and how it affects each department, therefore having an understanding of the need for reducing energy costs during peak times and when facilities are not in use. Staff are asked for suggestions and participation on how to achieve savings on energy costs and new purchases and changes are discussed concerning their efficiency and effectiveness.

Municipal Garage

Technical Measures: In 2021 the Municipal Garage had the garage roof replace with increased level of insulation to R-20 and a new continuous vapour barrier which will reduce heat loss, eliminate damming and reduce heating and cooling energy costs and consumption. In 2018 the heating source was replaced with a new propane furnace. In 2010 we completed the retrofit of all florescent lighting in the garage.

Organizational Measures: There is no new major construction in the foreseeable future, however, there is plans for 2024 to replace the garage exhaust fan with one that will be energy efficient, and ceiling upgrades are also planned to help reduce heat loss. It is the position of the Municipality to seek the highest, most affordable, and practical options in construction and equipping to meet energy conservation and efficiency targets. This may include hiring local contractors and using local suppliers to reduce the footprint created by shipping and importing goods, services or labour.

Behavioral Measures: All of staff is involved in the budgeting process and how it affects each department, therefore having an understanding of the need for saving on energy costs when able. Staff are asked for suggestions and participation on how to achieve savings on energy costs and new purchases and changes are discussed with respect to their efficiency and effectiveness.

Laird Township Community Hall

Technical Measures: In 2020 the oil furnace was replaced with a new propane furnace and heat pump. The new unit had a 97% efficiency rating which will help to reduce heating and cooling energy costs and consumption. In 2010 a complete retrofit of all florescent lighting in the hall.

Organizational Measures: There is no new construction or renovations in the foreseeable future, however if there was to be it is the position of the Municipality to seek the highest quality, most affordable and practical options in construction

and equipping to meet energy conservation and efficiencies targets, in addition to measures that would reduce our environmental footprint. Examples include purchasing locally rather than shipping from a foreign country, bulk purchasing rather than one item at a time, utilizing local contractors and labour whenever possible, and negating the need for measures that leave a negative environmental impact or lead to increased consumption of fossil fuels.

Behavioral Measures: All of staff are involved in the budgeting process and how it affects each department, therefore having an understanding of the need for saving on energy costs when able. Staff provide input on how to achieve savings in energy costs and consumption, and new purchases and changes are discussed with respect to their efficiency and effectiveness.

Bar River Community Hall

Technical Measures: In 2017 the oil furnace was replaced with a new propane furnace. In 2010 we completed the retrofit of all florescent lighting in the hall.

Organizational Measures: The Bar River Community Hall is currently under major renovations which include items such as new windows, doors, insulation, siding, LED light fixtures, new ceiling fans, and appliances. It is the position of the Municipality to seek the highest, most affordable, and practical options in construction and equipping to meet energy conservation and efficiency targets.

Behavioral Measures: All of staff are involved in the budgeting process and how it affects each department, therefore having an understanding of the need for saving on energy costs when able. Staff is asked for their suggestions on how to achieve savings on energy costs and new purchases and changes are discussed with respect to their efficiency and effectiveness.

G.W. Evoy Rink

Technical Measures: In 2024 the oil furnace was replaced with a propane furnace. In 2010 we completed the retrofit of all florescent lighting in the hall.

Organizational Measures: There is no new construction in the foreseeable future, however, if there was to be it is the position of the Municipality to seek the highest, most affordable, and practical options in construction and equipping to meet energy conservation and efficiencies targets.

Behavioral Measures: All of staff are involved in the budgeting process and how it affects each department, therefore having an understanding of the need for saving on energy costs when able. Staff is asked for their suggestions on how to achieve savings on energy costs and new purchases and changes are discussed with respect to their efficiency and effectiveness.

Renewable Energy Generation Facility

N/A

Conclusion

The 2025-2029 Energy Conservation and Demand Management Plan for the Municipality of Laird will assist the Municipality in meeting energy-related goals, reporting requirements as per O. Reg. 25/23, and striving for continuous improvements related to both industry best practices and internal practice improvements. These goals will be established annually through Council's approved budget.