



TOWNSHIP OF SOUTH-WEST OXFORD

Energy Management Plan: 2019 to 2024



A leader in the development and delivery of municipal services for the growth & well-being of our community

Contents

Executive Summary	2
Vision.....	2
Policy	2
Our Commitment.....	3
Goals.....	3
The Township’s Historic Commitment to Energy Savings.....	4
Overall Target.....	4
Objectives: 2014 to 2019	4
Organizational Understanding.....	5
Summary of Current Energy Consumption	5
Implementation of Planning.....	5
Consideration of Energy Efficiency for all Projects	5
Factors which influence Energy Consumption.....	5
Energy Leader	5
Staff Resources	5
Township Grants for Energy Reduction	6
Township Grants for Waste Diversion	6
Climate Change Reserve.....	6
Objectives 2019 to 2024	7
Review Process	10
Energy Plan Review	10
Evaluation Progress	10
Energy Consumption (<i>sample evaluation</i>)	10
Green House Gas Emission	10
South-West Oxford Energy Innovation Committee.....	11
Terms of Reference	11

Executive Summary

The updated South-West Oxford Energy Management Plan 2019-2024 continues our commitment to take a leadership role regarding:

- the implementation of new energy technologies;
- energy and water conservation; and
- achieving our zero-waste goal through education of Council, staff, committees of council and the public in waste reduction and diversion.

The updated plan sets high level goals for the Township over the next five (5) years with action items to be developed by the Township's Energy Innovation Committee and details worked out by the Senior Management Team.

Vision

We exercise stewardship in our use of finite energy resources in order to demonstrate corporate and community leadership, optimize our delivery of services, and enhance the quality of life in our community.

Policy

We will incorporate energy efficiency into all areas of our activity including our procurement practices, financial management decisions, facilities, equipment, infrastructure operations and maintenance.

Our Commitment

The Township of South-West Oxford Energy Innovation Committee of Council was created in 2012. The Terms of Reference for the Committee were updated in 2017 to provide that the Committee will:

- ✓ provide leadership within the community in energy conservation;
- ✓ educate our fellow citizens on innovative ideas that are available to make our world just a little brighter;
- ✓ encourage residents to use energy resources more economically; and
- ✓ support the goals of Future Oxford and the County of Oxford's goal to be 100% renewable by 2050.

“We will allocate the necessary resources to develop and implement a strategic energy management plan that will reduce our energy consumption and its related environmental impact”

*-Council of the Township of South-West Oxford
May 20, 2014*

Goals

To continuously improve the energy efficiency of our facilities and processes to reduce our operation costs, our energy consumption and greenhouse gas emissions. This will result in:

- Reduction in energy consumption
- Greenhouse gas reduction
- Cost savings

To continuously reduce the amount of material going to landfill to reduce greenhouse gas emissions. This will result in:

- Extended life expectancy of the County landfill site
- Removal of recyclables and organics from the waste stream

The Township's Historic Commitment to Energy Savings

Overall Target

In 2014, the Township set a target to reduce its consumption of fuels and electricity in all municipal operations at an average of 2% per year between 2014 and 2019.

Description	2012 level	Goal 2015	2017* Levels	Reduction (from 2015 goal)
Electrical consumption	713,883 kWh	699,605 kWh	420,539 kWh	40%
Natural Gas	46,760 m ³	45,824 m ³	39,910 m ³	13%
Propane	0.00	0.00	13,750 litres	n/a
Heating Oil	20,705 litres	20,281 litres	15,799 litres	22%
GHG	222,054	217,613	165,980	23%

*LAS data recently closed for the year 2017 (2019 data conversion will be available in 2021)

Description	2012 Level	Goal for 2015	2017 Levels
Motor vehicle fuel	215,863 litres	211,546 litres	
GHG – to be determined			

Objectives: 2014 to 2019

1. Implement energy audits recommendations on all municipal facilities between 2014 and 2019.
2. Reduce total energy consumption in municipal facilities; **normalized to weather conditions**, by 6% over the next three (3) years.
3. Maximize our fiscal resources through direct and indirect energy savings.
4. Reduce the environmental impact of the Township's operations.
5. Increase the comfort and safety of staff and patrons of the Township facilities.
6. Improve the reliability of Township equipment and reduce maintenance.
7. Develop a culture of environmental sustainability.
8. Improve the Township Council and Staff understanding of energy consumption which is essential for us to meet our corporate energy management goals.
9. Education the public by increasing the energy conservation exhibits at local events.

Organizational Understanding

Summary of Current Energy Consumption

The total energy consumption* in municipal operations for 2017 is 36,359 ekWH at a cost of \$175,681.00 per year and GHG emission of 165,980 kg/year eCO₂.

*Does not include vehicle fuel consumption.

Implementation of Planning

Consideration of Energy Efficiency for all Projects

We will incorporate life cycle cost analysis into the design procedures for all capital projects.

Factors which influence Energy Consumption

Special events, such as those listed below, may influence energy consumption:

- Unusual weather (i.e. mild winter, hot and humid summers);
- Volume and type of Township construction projects;
- Infilling of street lights;
- Transfer of infrastructure ownership to the Township from the developer of completed subdivisions;
- Closing, renovation or opening a new facility.

Energy Leader

The Township will clearly designate leadership and overall responsibility for corporate energy to management, specific staff and the Energy Innovation Committee.

Staff Resources

The Senior Management Team (SRT) will be responsible for the overall implementation of the energy management plan, particularly, in their respective facilities.

It is important that all staff understand the importance of energy management and that an overall culture of energy efficiency is developed. All staff will have a goal to participate in the Township plan to reduce energy usage by 2% each year until 2024.

Communication, awareness and training programs are key components in the overall energy management program and will be undertaken where needed including communication and awareness strategies.

Energy conservation will be included as a standing topic at staff meetings as well as being discussed on a regular basis with Public Works' staff. Staff and local council committees will be challenged to come up with energy savings in facilities as well as staff examining ways to operate vehicles in a fuel-efficient manner.

The Township will carry out the required development of business procedures and communication programs and implement them methodically according to the planned timelines within the resource constraints that apply.

[Township Grants for Energy Reduction](#)

South-West Oxford Township Council approves \$3,000.00 in annual funding (\$1,000.00 maximum per project) as part of the annual Township budget for use by local council committees to help offset the cost of upgrades at facilities to reduce energy consumption. Applications for funding are made to the Energy Innovation Committee for consideration.

[Township Grants for Waste Diversion](#)

South-West Oxford Township Council has funding available in the Waste Management Reserve to help offset the cost for containers, advertising and signage to divert organics and recycling from the waste stream, capturing and utilizing of rainwater at Township facilities as well as promotional events held by the Township.

[Climate Change Reserve](#)

South-West Oxford Council created a Climate Change Reserve in 2016.

Objectives 2019 to 2024

Area of Focus:	Goals:	Action Items:
<i>Township Facilities</i>	Reduce energy consumption in facilities	<ul style="list-style-type: none"> ▪ Replace lights with LEDs to bypass the ballast ▪ Install NEST thermostats ▪ Install motion sensing light switches ▪ Full implementation of Township Facility Energy Audits ▪ Develop criteria for the design and/or acquisition of new municipal buildings that include energy performance standards (LEED and the Model National Energy Code for Buildings) ▪ Incorporate green building features to improve energy and water efficiency as able
	Increase comfort and safety of staff and patrons of Township facilities	<ul style="list-style-type: none"> ▪ Consider the development of a minimum insulation factor for ceiling insulation in Township facilities
<i>Township Operations</i>	Reduce environmental impact of Township Operations	<ul style="list-style-type: none"> ▪ Continue to implement system upgrades to new technology ▪ Implement alternative energy projects (vehicles, fuel) ▪
	Improve the reliability of Township equipment and reduced maintenance	<ul style="list-style-type: none"> ▪ Implement energy efficient standards when replacing equipment ▪ Ensure that a preventative maintenance programs is implemented for each facility ▪ Develop and implement a facility walk-through checklist to be used by department managers

Area of Focus:	Goals:	Action Items:
<i>Environmental Sustainability</i>	Develop a Township culture of environmental sustainability	<p>related to energy efficiency</p> <ul style="list-style-type: none"> Public education, display and exhibits at local events Energy Innovation Committee responsible for community engagement at Township events Ensure subdivision development agreements include LED streetlights Encourage and support Committees of Council to move to zero waste community and fundraising events Continue to review and update the Township's Energy Management Plan
	Improve the Township's understanding of energy consumption to meet corporate energy management goals	<ul style="list-style-type: none"> Provide comprehensive energy data to senior management and other identified staff Develop a communications plan to promote the importance of energy efficiency and energy use/savings to staff Utilize the Township's newsletter to educate the public about the Energy Management Plan and the benefits of energy conservation and waste reduction
<i>Fiscal Responsibility</i>	Maximize fiscal resources through direct & indirect energy savings	<ul style="list-style-type: none"> Research and utilize available energy conservation grants for projects Continue to support annual funding of \$3,000 (\$1,000 per project) to help offset the cost of

<i>Area of Focus:</i>	Goals:	Action Items:
		<div>facility upgrades to reduce energy consumption</div> <ul style="list-style-type: none">▪ Continue to support funding to offset the cost of containers (green cones, recycling bins, composter) to divert waste from the landfill▪ Continue to fund the Township's climate change reserve annually▪ Continue to track and report on Township energy consumption to identify savings achieved

Review Process

Energy Plan Review

The Township of South-West Oxford will review and evaluate our energy plan, revising and updating it as necessary, on an annual basis within our corporate planning process.

Evaluation Progress

Energy Consumption (*sample evaluation*)

Our energy consumption in the year of _____ was reduced to _____ from in the year of _____ levels of _____.

Green House Gas Emission

In the year of _____ our corresponding greenhouse gas emissions in _____ are _____ tonnes from natural gas consumption and _____ tonnes from electricity consumption. This represents a _____% reduction over our _____ levels.

South-West Oxford Energy Innovation Committee

Terms of Reference

1.0 Committee Name:

Township of South-West Oxford Energy Innovation Committee

2.0 Committee Type: Standing

3.0 Committee Nature: Working

4.0 Committee Purpose:

To provide leadership within the community in energy conservation; to educate our fellow citizens on innovative ideas that are available to make our world just a little brighter; to encourage residents to use energy resources more economically; and to support the goals of Future Oxford and the County of Oxford's goal to be 100% renewable by 2050.

5.0 Committee Responsibilities:

The Committee is responsible for:

- Assisting the Township in taking a leadership role regarding the implementation of new energy technologies and waste reduction and diversion in the County;
- Assist in the drafting of a document to answer questions from the public regarding the new technologies;
- Helping to establish guidelines to be used by staff and committees when upgrading/improving facilities;
- Providing energy conservation and waste diversion and reduction comments to council/staff as it replaces/renovates and operates Township buildings;
- Providing input into the Township budget process to ensure adequate funds are set aside for Committee Education Programs and grants.

6.0 Composition of Committee – Directors: *(Minimum of 5 voting members)*

Council (2):	Two Members of Council Mayor (ex-officio)
Staff (2):	Works Superintendent, Chief Building Official
Community (4):	Selected from the community-at-large
Liaison (non-voting)	Township Clerk (staff support) Future Oxford Representative ERTH Representative

Should a member of the Committee resign the remaining members will decide whether the vacancy needs to be filled. If the Committee moves forward with filling the vacancy the new member chosen should be selected from the same category as the previous appointee.

Quorum:

For the purposes of this committee quorum is calculated as 5 voting members.

Chairperson: Shall be elected by the Committee at the first meeting of each calendar year. Should the Chairperson be absent from a meeting the Committee will vote to appoint an Acting Chairperson for that specific meeting.

Authority: Decisions will be decided by a majority vote (50% of the members present). Motions dealing with matters are introduced by the request of a mover and seconder. In the case of a tie vote, the chair will make the breaking vote.

7.0 Support and Resources

Administrative and Technical support will be provided by the Township of South-West Oxford as needed.

8.0 Committee Meeting Location:

Committee meetings should take place at the Municipal Council Chambers and at times may take place at facilities that accessible by all members of the public.

9.0 Frequency of Meetings:

Monthly - first Wednesday of each month at 4:30 p.m.

10.00 Accountability and Transparency:

All meetings are open to the public.

- Complete agenda packages (including previous minutes and reports) are to be published and circulated to committee members a minimum of 4 days prior to the meeting;
- Township staff will post this information on the Township website and circulate copies of the minutes to Council as part of their agenda package;
- The business of the Committee will be unbiased in respect

of race, religion, gender, age politics, sexual orientation, and physical or mental defect.

11.0 Committee Reports:

The Committee reports directly to Council through the Clerk.