



5 year Conservation & Demand Management Plan

Township of Emo

2014 - 2018

Township of Emo 5 Year Conservation & Demand Management Plan

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Township of Emo 5 Year Conservation & Demand Management Plan

Commitment

- **Declaration of Commitment:** BE IT RESOLVED 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.
- **Vision:** We exercise stewardship in our use of finite energy resources to demonstrate leadership, optimize our delivery of services, and enhance the overall quality of life in our community.
- **Goals:** To continuously improve the energy efficiency of our facilities and processes in order to reduce our operating costs, our energy consumption and the concomitant greenhouse gas emissions.
- **Overall Target:** We will reduce our consumption of fuels and electricity in all municipal operations by an average of 1.5% per year between now and 2020.
- **Objectives:** 1. To implement energy audits on all municipal facilities during the next five years; 2. To reduce total energy consumption in municipal facilities, normalized to weather conditions, by 1.5% over the next three years; 3. To reduce energy consumption in the municipal community centre by 1.5% during fiscal year 2016/2017.

2. Organizational Understanding

- Our Municipal Energy Needs:

- **Summary of Current Energy Consumption, Cost and GHGs:** The total annual energy consumption in municipal operations is 1,150,010.45 ekWh, at a cost of \$92,747.69 per year and GHG emission of 154,409.96 kg/year eCO₂.

- **Renewable Energy Utilized or Planned:** The Township of Emo aspires to show leadership in the promotion and development of renewable energy systems that are compatible with our asset management and land use planning objectives. As a result, we will investigate the potential to develop solar photovoltaic systems on the rooftops of all corporate facilities with sound, south-facing roofs

3. Resources Planning

- **Energy Leader:** We will clearly designate leadership and overall responsibility for corporate energy management.

4. Projects Execution

- **Municipal Level:** We will carry out the required development of business procedures and communication programs and implement them methodically according to the planned time lines within the resources constraints that apply.
- **Asset Level:** We use department and facility energy team representatives to facilitate the implementation of facility level business procedures and communication initiatives, including energy performance reporting.

5. Review

- **Energy Plan Review:** We will review and evaluate our energy plan, revising and updating it as necessary, on an annual basis within our corporate planning process.

6. Evaluation Progress

- **Energy Consumption:** Our energy consumption in 2014 has decreased to 1,150,010.45 kg CO₂e from our 2012 levels of 1,414,734.76 kg CO₂e/yr. We credit this change to energy saving options chosen within the Township of Emo's Municipal Facilities.

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7. Energy Consumption and GHG Emissions

From: 2014-01-01 To: 2018-12-31

Facility Name	Address	Area (m2)	Avg Hrs/Day	Fuel Types	Consumption	Cost (\$)	Energy (ekWh/yr)	GHG Emissions (kg CO2e/yr)
Facility Primary Type: Office								
Contact North	5907A Hwy 11/71	96	5.72	Elect.	2629.00 kWh	726.43	2629	199.84
Facility Type Total						726.43	2629	199.84
Facility Primary Type: Fire								
Emo Public Works Department	47 Canning Lane	2501	6.41	NG	4159.19 m3	1387.45	44202.93	7863.47
				Elect.	10631.72 kWh	1416.57	10631.72	808.14
Facility Type Total						2804.01	54834.64	8671.61
Facility Primary Type: Police								
OPP Facility	5907 Hwy 11/71	319	24	NG	14476.00 m3	4053.33	153847.70	27368.72
				Elect.	48796.00 kWh	6697.87	48796.00	3709.08
Facility Type Total						10751.20	202643.70	31077.80
Facility Primary Type: Community Centre								
ELCC	78 Colonization St.	1187	4.98	NG	12069.00 m3	3874	128266.64	22817.98
				Elect.	98105.00 kWh	16655.19	98105.00	7457.16
Facility Type Total						20529.19	226371.64	30275.13
Facility Primary Type: Curling								
Emo Curling Rink	9006 Hwy 602	500	0.55	NG	604.00 m3	284.18	6419.18	1141.94
				Elect.	24199.00 kWh	3385	24199.00	1839.41
Facility Type Total						3669.18	30618.18	2981.35
Facility Primary Type: Public Works								
Emo Public Works Department	47 Canning Lane	6615	6.41	NG	11000.81 m3	3669.71	116914.17	20798.43
				Elect.	28120.28 kWh	3746.74	28120.28	2137.48
Facility Type Total						7416.46	145034.46	22935.91
Facility Primary Type: Other								
Lions Park Facility	17 Front Street	56	3.22	NG	207.00 m3	150.15	2199.95	391.36
				Elect.	7304.00 kWh	1191.48	7403.00	562.72
Facility Type Total						1341.63	9602.95	954.08
Facility Primary Type: Town Hall								
Municipal Office	39 Roy Street	1976	4.73	NG	2171.00 m3	890.10	23072.90	4104.55
				Elect.	9126.00 kWh	1536.35	9126.00	693.69
Facility Type Total						2426.45	32198.90	4798.24
Facility Primary Type: Water Treatment Facility								
Water Treatment	33 Front St	252	24	NG	17186.00 m3	5113.91	182648.98	32492.32
				Elect.	192679.00 kWh	27791.29	192679.00	14645.92
Hwy Lift Station	1 Hwy 11/71	10	24	Elect.	3642.00 kWh	847.26	3642.00	275.84
Meadow St Lift Station	64 Meadow St	10	24	Elect.	3398.00 kWh	817.96	3398.00	258.29
Facility Type Total						24570.42	382367.98	47673.36
Facility Primary Type: Single-Pad Arena								
ELCC 2	78A Colonization Street	1927	3.47	Elect.	63709.00 kWh	8512.72	63709	4842.65
Facility Type Total						8512.72	63709	4842.65
Grand Total						92747.69	1150010.45	154409.96

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