



MUNICIPALITY OF ARRAN-ELDERSLIE ENERGY CONSERVATION & DEMAND MANAGEMENT PLAN 2014

Regulation 397/11, The Green Energy and Green Economy Act gives the Province the authority to require public agencies, including municipalities, to develop an Energy Conservation and Demand Management Plan.

Successful energy management depends on the integration of energy efficient practices into the “business as usual” conduct of the organization, is based on a regular assessment of energy performance and requires the implementation of procedures and measures to reduce energy waste and increase efficiency. The common element of successful energy management is the allocation of staff and resources to continually improve energy performance.

SECTION 1: ARRAN-ELDERSLIE’S *DECLARATION OF COMMITMENT*

The Municipality of Arran-Elderslie 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 through creating policies and identify efficiencies. This requires a commitment from Council, Management and staff to increase awareness and understanding of energy management and incorporate policies to reduce consumption on a daily basis. Staff will update the plan as required under Regulation 397/11 of the Green Energy Act or any subsequent legislation.

SECTION 2: ARRAN-ELDERSLIE’S *VISION*:

The Municipality will strive to continually reduce our total energy consumption and associated carbon footprint through efficient use of energy and resources, while maintaining an efficient level of service for the general public. As a major component of the operating costs of municipal facilities and energy costs will be factored into the life cycle cost analysis and asset management.

SECTION 3: ARRAN-ELDERSLIE’S *GOALS AND OBJECTIVES*:

1. To identify and implement various energy efficiencies in all municipal operations;
2. Utilize Best Practices to reduce municipal operating costs, energy consumption and greenhouse gas emissions;
3. Achieve cost savings through various energy saving initiatives and identify potential funding opportunities available to encourage energy enhancements;
4. Reduce the environmental impact of the municipality’s operation and create a culture of conservation;

5. To improve the reliability of the municipality's equipment and reduce maintenance;
6. To conduct energy audits of all buildings over the next 5 years.

SECTION 4: ARRAN-ELDERSLIE'S ENERGY REDUCTION TARGET:

Overall Target: The Municipality will strive to reduce the overall municipal energy consumption (electricity, natural gas, propane and gasoline) from all facilities, equipment and streetlights by 5% from 2014 to 2019 based on 2011 baseline data.

SECTION 5: ANNUAL CONSERVATION PLAN (2014-2019)

FACILITY	PROJECT	YEAR	OWNER	CAPITAL COSTS	SAVINGS
All staff	Education/awareness	On going	Council/ Management/ All staff		
All Municipal Facilities	Fluorescent light replacement	2015	All staff, Fire		
All Municipal Facilities	Programmable thermostats	2015	Facilities/Fire		
Municipal Facilities	Replace all emergency lighting and exit signs to LED lamps	2015	Facility Mgr	\$30/sign	\$25/sign/yr
Sewage Lagoons	Replace lighting	2014	Works Mgr		\$311/year
Paisley Arena	Replace oil furnace with propane	2014	Facility Mgr	\$13,500	\$1,000
Paisley Library	Insulated entrance doors	2014	Facility Mgr	\$3,000	
Township Streetlights	Replace lights in Paisley	2019	Works Mgr		
Old Town Hall	Replace oil furnace with propane	2014	Facility Mgr	\$16,500	\$2,500
Municipal Buildings	Management efficiencies	ongoing	CAO, Managers, staff		
Energy Efficiency	Use power bars on all computers/turn off @ night/weekends Turn off all electronic devices coffee makers, printers, calculators, phone charges nights and weekend		All staff		
Energy Efficiency	Window replacement program – window sealing, caulking, weather-strip		Facilities & Works Manager		



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Lighting Upgrade	Motion sensors on all lighting		Facilities Manager		
Energy Efficiency	Employee Incentive Program: Encourage staff to identify opportunities		Council, CAO, Managers		
Energy Efficiency	Install occupancy sensors in all buildings	2015	Works & Facility Manager		
Energy Efficiency	Fleet Replacement Plan <ul style="list-style-type: none"> - Long term planning to ensure useful life of vehicle - Use of inverters rather than generators - Program to schedule routine maintenance and inspection 		Treasurer/ Works Manager		
Energy Efficiency	Traffic Signals & Street Lighting <ul style="list-style-type: none"> - All street traffic lights when repaired or replaced shall upgrade to LED lighting - Investigate solar lighting 		Works Manager/ Treasurer		
Energy Efficiency	Upgrade T12 lighting to T8 technology		Facilities & Works Manager		
Energy Efficiency	Upgrade heating and cooling systems		Facility & Works Manager/ Treasurer		

SECTION 6: ARRAN-ELDERSLIE'S ENERGY LEADER

The Municipality of Arran-Elderslie will incorporate energy management planning as an integral component of the management structure including the municipality's budget process and overall asset management plan. Council, in cooperation with the management team will be responsible for leading the municipality and providing the corporate culture in energy management.

Municipal energy data is managed by the Treasurer. The data is received via supplier invoices and reported to the Ministry annually as required under Regulation 397/11.

SECTION 7: ARRAN-ELDERSLIE ENERGY USE AT THE MUNICIPAL LEVEL

Municipal staff will implement energy efficiencies and reductions at the direction of Managers.

Council will provide adequate resources and provide skill training for employees that have involvement with energy consuming systems in order to enhance their capacity to achieve energy efficiency improvements.

SECTION 8: ARRAN-ELDERSLIE ASSET LEVEL EXECUTION

Providing education to all staff is essential to conserve energy consumption and greenhouse gases. Training focused on the energy use and conservation opportunities associated with employees job functions will be utilized whenever possible.

The initial action in executing the energy management plan will be to complete facility energy audits for all facilities in a 5 year period.

The Chesley, Paisley and Tara Arenas had audits completed by LAS in 2013 and various initiatives identified within the audit will be undertaken over a 5 year period.

Life-cycle cost analysis of HVAC systems (boilers, chillers, pumps, motors), Lights and Controls, Building Envelope, Water & Sewage usage will identify projects to be undertaken and assist with long-term capital planning and budgeting.

SECTION 9: ARRAN-ELDERSLIE'S ENERGY PLAN REVIEW & CONSUMPTION

The Municipality of Arran-Elderslie will annually review, evaluate and update the plan as required by Regulation 397/11.

Energy consumption in 2011 was 2,345,818.210 and in 2012 was 2,045602.1
Green house gas emissions in 2011 were 484,595.53 and in 2012 were 609221.8

2011 and 2012 data cannot be compared as additional buildings were included in 2012.