Energy Conservation and Demand Management Plan
Town of South Bruce Peninsula
From: January 1, 2014 to December 31, 2014

Commitment

- **Declaration of Commitment:** Senior staff will develop strategic energy management plans that will reduce energy consumption and its related environmental impacts for implementation in annual Capital budget presentations.

- **Vision:** The Town will strive to incorporate energy efficiency into all areas of our activities including human resources management procedures, procurement practices, financial management and investment decisions, and facility operations and maintenance. It will be the Town's objective to identify and reduce energy consumption subject to the available resources in order to address energy management issue.

- **Goals:** 1.To continuously improve the energy efficiency of our facilities and processes in order to reduce our operating costs, our energy consumption and the associated greenhouse gas emissions. 2. To create a culture of conservation within the municipality.

- **Overall Target:** To study and implement, when cost-effective, all proposed energy savings projects listed in the Town's "Detailed Feasibility Study", Ainsworth Inc., February 2009.

- **Objectives:** 1.To review with the intent to continue with the implementation of the proposed energy saving retrofit and optional capital upgrade projects previously identified by Ainsworth Inc. in a report titled "Detailed Feasibility Study", February 2009. 2. Examine new capital project plans for opportunities to improve energy efficiencies. 3. Monitor and report annually on energy consumption.

Organizational Understanding

- **Summary of Current Energy Consumption and GHGs:** The total annual energy consumption in 2011/2012 at facilities listed in the Town's Energy Consumption and Greenhouse Gas Emissions Report was 2,192,718.60/1,722,834.90 kWh of electricity, 72,237.39/73,388.18 m3 of natural gas and 36,583.80/21,352.94 litres of propane equal to GHG emissions of 364,476.24/337,115.28 kgs

- **Renewable Energy Utilized:** The Town of South Bruce Peninsula utilizes geothermal energy for heating and cooling of the Sauble Beach Community Centre.

Strategic Planning

- **Links with other municipal plans:** As an integral component of the management structure, the Energy Conservation and Demand Management Plan is to be coordinated with the municipality's budget planning, strategic plan, purchasing policy, preventative maintenance plans, environmental management plan, asset management plan, and the policy development process.

Structure Planning

- **Staffing requirements and duties:** We will incorporate energy efficiency into standard operating procedures and the knowledge requirements for operational jobs.
- **Consideration of energy efficiency for all projects:** The Town will incorporate life cycle cost analysis into the design procedures for all capital projects. The intent is to make Energy Conservation and Demand Management (ECDM) the normal course of business for all facility and operational retrofits, including capital renewal and life cycle replacements projects .This ensures that options for improving energy efficiency are considered, evaluated and quantified in terms of life cycle costing analysis, including cost, maintenance and emission reductions.

Resources Planning

- **Energy Leader:** The Manager of Public Works in conjunction with the Facilities Coordinator will take the lead in implementing energy management with input and cooperation from all other departments.

Procurement Planning

- **Energy Purchasing:** In addition to the conservation of energy, the procurement of energy is equally as important. Proper energy procurement includes: rate optimization, utility account management, supplier choice and evaluation, supply reliability and quality, demand/supply optimization and risk management. The town will develop a procedure for the negotiation of energy purchase contracts that appropriately addresses our cost considerations, available energy services, energy quality and reliability, and other performance factors. A primary objective of this policy will be to provide price stability by fixing future prices. A key deliverable will be to investigate and report back to senior management and Council on energy commodity purchasing programs available to the municipality. Staff will review any cost and consumption variances as well as project upcoming annual costs per commodity for budgeting and consumption load profiles.

Projects Execution

- **Municipal Level:** The administration and implementation of this Energy Conservation and Demand Management Plan will be the responsibility of the Manager of Public Works in conjunction with the Facilities Coordinator. Since we all use energy in our daily activities, it will also be the responsibility of all municipal staff to be aware of their energy use and work towards a culture of conservation.
- **Asset Level:** In order to sustain a corporate culture of conservation, staff must be engaged in an effective awareness and education program. Although facilities staff have the lead responsibility in ensuring Town facilities operate efficiently, all Town employees should be familiar with and utilize energy efficient measures where possible. The first step in implementing an energy management program is the completion of energy audits for Town facilities. Audits involve a technical review of a facility and its operations, the development and analysis of a baseline energy profile for the facility and identification of energy management opportunities and savings. Over the life cycle of a facility, the mechanical building automation and distribution systems become outdated and inefficient. Moreover, mechanical distribution or building controls instrumentation is sometime over-looked when renovations take place. The

Town will review automation controls and instrumentation when renovating or re-commissioning any of its facilities mechanical systems.

Review

- **Energy Plan Review:** We will review and evaluate our ECDM plan annually, revising and updating it as necessary within our corporate planning process.

Town of South Bruce Peninsula
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Project Description	Facility	Contact	Status
Replace existing 100-W, 125-W & 250-W high pressure sodium lamps and 250-W mercury vapour lamps with energy efficient LED lights	Town of South Bruce Peninsula	Operations Supervisor	On going [30%]
Retrofit all T12 fluorescent lights and magnetic ballast to T8's and electronic ballast	Sauble Beach Community Centre	Facilities Coordinator	On going (65%)
Programmable Thermostats	Sauble Beach Community Centre	Facilities Coordinator	Complete (100%)
Install occupancy sensor light switches	Sauble Beach Community Centre	Facilities Coordinator	Complete (100%)
Replace water source heat pumps and ground loop piping	Sauble Beach Community Centre	Facilities Coordinator	Complete (100%)
Outdoor cut-off controller on HVAC system	Sauble Beach Fire Department	Manager of Emergency Services	Pending (0%)
Retrofit all T12 fluorescent lights and magnetic ballast to T8's and electronic ballast	Sauble Beach Fire Department	Manager of Emergency Services	Complete (100%)
Improve weather stripping on man doors and overhead doors	Sauble Beach Fire Department	Manager of Emergency Services	Complete (100%)
Retrofit all T12 fluorescent lights and magnetic ballast to T8's and electronic ballast	Town Hall	Facilities Coordinator	On going (75%)

Install occupancy sensor light switches	Town Hall	Facilities Coordinator	Pending (0%)
Window replacement	Town Hall	Facilities Coordinator	On going (80%)
Replace roof top HVAC units at end of life cycle with high efficiency units	Town Hall	Facilities Coordinator	On going (75%)
Install weather stripping and sealing doors and windows	Town Hall	Facilities Coordinator	On going (75%)
Programmable Thermostats	Town Hall	Facilities Coordinator	Pending (0%)
Retrofit all T12 fluorescent lights and magnetic ballast to T8's and electronic ballast	Wiarton Community Centre & Arena	Facilities Coordinator	Ongoing (75%)
Floating Head Pressure Control: VFD to be provided for condenser fan	Wiarton Community Centre & Arena	Facilities Coordinator	Pending (0%)
Replace existing HVAC system with high efficient gas fired roof top units	Wiarton Community Centre & Arena	Facilities Coordinator	Complete (100%)
Programmable Thermostats	Wiarton Community Centre & Arena	Facilities Coordinator	Complete (100%)
Install weather stripping and sealing doors and windows	Wiarton Community Centre & Arena	Facilities Coordinator	Complete (100%)
Replace existing 600 volt transformers with high efficiency transformers	Wiarton Community Centre & Arena	Facilities Coordinator	Complete (100%)
Install occupancy sensor light switches	Wiarton Community Centre & Arena	Facilities Coordinator	Pending (0%)

Insulate brine header piping	Wiarton Community Centre & Arena	Facilities Coordinator	Complete
			(100%)