



St. Mary's General Hospital

Ontario Regulation 397/11 – Energy Conservation and Demand Management Plan

Overview

Regulation 397/11 of the *Green Energy Act* requires that all Ontario public agencies prepare Conservation and Demand Management plans by July 1st, 2014. As part of this regulation, hospitals are required to submit to the Ministry of the Environment and publish a summary of their most recent greenhouse gas emissions (GHG) and energy consumption data.

Organization

St. Mary's General Hospital is a 150 bed adult acute care hospital located at 911 Queen's Blvd., Kitchener, ON. The facility has 404,000 square feet of space with nine operating rooms. St. Mary's has more than 2,000 staff, physicians and volunteers and cares for hundreds of thousands of patients a year in our core clinical programs: Cardiac Care (Regional Cardiac Centre), Respiratory Care (Level 1 Thoracic Surgery Centre), Outpatient (Day) Surgery, General Medicine, 24/7 Emergency Care.

Goals and Objectives

St. Mary's General Hospital is committing to a minimum 5% reduction in overall energy intensity (GJ/m²) at an average reduction rate of 1% per lifecycle year of this plan. On a yearly basis these reductions result in the following goals:

2013 - 64.05072059 (GJ/M²)
2014 - 63.41021338 (GJ/M²)
2015 - 62.76970618 (GJ/M²)
2016 - 62.12919897 (GJ/M²)
2017 - 61.48869177 (GJ/M²)
2018 - 60.84818456 (GJ/M²)

The information below outlines the methods the hospital has committed to in order to reduce overall energy consumption by the amounts noted above.

It should be noted that over the next five years St. Mary's General Hospital will make many additional efforts to reduce energy and utility consumption, but as of the date of this posting only the following methods have received both managerial and financial commitment.

Building Operating Performance

HVAC Evaporator Coil Cleaning – Pursuing preventative yearly cleaning of evaporator coils with a Q3 2014 implementation. Static pressure reductions on air handling units (AHU's) equipped with variable frequency drives (VFD's) are anticipated to reduce yearly electricity consumption by approximately 32,000 kWh.



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Building Automated System (BAS) Re-Optimization – Conducting departmental scheduling audits. Inconsistencies between current schedules and BAS settings will be corrected to ensure that maximum savings from allowable setbacks are achieved. Audit to be completed by Q1 2015 with optimization immediately following. Estimated energy savings to be calculated following audit completion.

Facility Upgrades

Occupancy Sensors and Daylight Sensing – Future hospital renovations will include financial provisions and specifications for occupancy based lighting controls unless deemed clinically inappropriate. Day-lite spaces will include auto-dimming technology in addition to occupancy sensing. St. Mary's General Hospital will also pursue occupancy sensing technology in stairwells, utility rooms, and washrooms as retrofits where it does not already exist.

High Efficiency Lighting – Remaining incandescent lamps to be replaced with LED equivalent following failure unless deemed clinically unsuitable. St. Mary's General Hospital to source LED equivalent of T8 lamp that coordinates with existing rapid start ballasts. Product to be specified by Q3 2014, and replacements based on demand maintenance failures.

Procurement and Financial Practices

Procurement Specifications - Establish and consistently use purchasing specifications that minimize life-cycle costs for energy efficient equipment and services. To be implemented and included in standard RFP templates by Q4 2014.

Financial Practices and Decision Making – Train financial decision making staff on Life Cycle Cost Analysis (LCCA) and utilize on all new construction, major renovations, and equipment replacements over lowest cost.

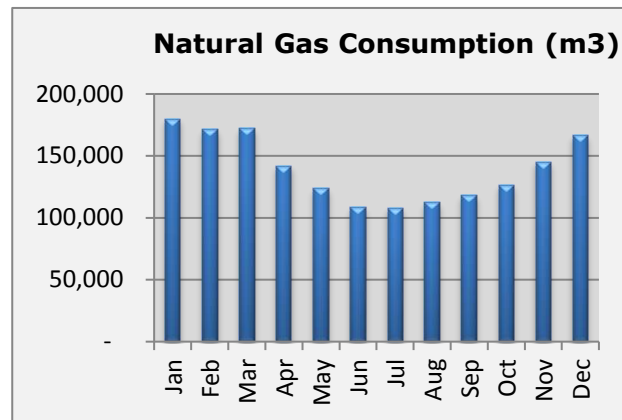
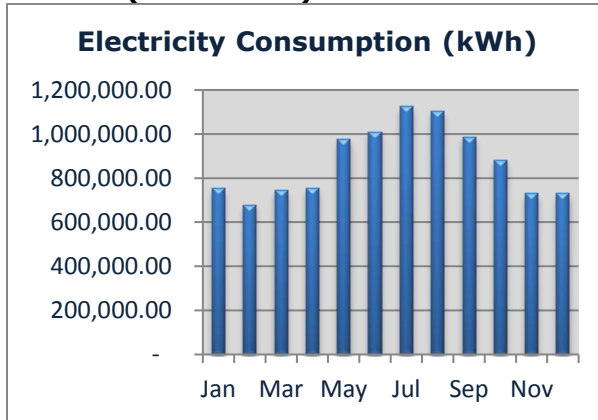
2013 Energy Consumption Data (Benchmark)

Corporate Sites

Site	Address	City	Postal Code	Square Feet	Average Hours per week (2013)
St. Mary's General Hospital	911 Queen's Boulevard	Kitchener	N2N 1B2	404,000	168

Energy Consumption Data (2013)

Site #1 (all sources)



Annual Electricity Consumption (kWh)	Total Natural Gas Consumption (m3)
10646440.31	1433042
Annual GHG (Kg)	Energy Intensity (GJ/m2)
3,731,832.025	64.05072059

Disclosure of Renewable Energy Generation

St. Mary's General Hospital does not currently own or operate any renewable sources of energy generation as defined in O.Reg 397/11.

Plan Lifecycle

This plan will commence on July 1st, 2014 and expire June 30th, 2019.

Plan Approval

This plan has been reviewed and approved by hospital senior management.