Strength in Numbers

Municipalities who invest in the EEMS energy solution will benefit from the knowledge and insight of other municipalities who work in the same industry and face similar challenges. Purchasing an EEMS license gives you access to a committee of licensees who meet on a regular basis to discuss and share industry best practices, strategies around commissioning, maintaining and upgrading EEMS. Existing licensees believe that EEMS is the best option for energy management because of its industry focus and proven ability to deliver in an ever changing energy market. EEMS offers its customers the ability to achieve the following critical objectives:

- Enable future strategic growth - interface smart meter data, electronic invoice information
- Manage organizational risk associated with finances, technology, and environmental regulations
- Share industry best practices through the EEMS KX forum
- Quickly respond to regulatory changes
- Focus on internal customers

How Do You Get Started

An essential component to a comprehensive energy plan is a software solution that accurately monitors municipal energy and environmental performance of municipal operations.
Contact The Regional Municipality of York and allow us to share our experiences and provide a presentation of the EEMS energy solution.

Manager, Corporate Energy Services
Property Services Branch
phone: 1-877-464-YORK
e-mail: energy@york.ca

The Regional Municipality of York
17250 Yonge Street Newmarket
Ontario L3Y 6Z1

ENERGY & ENVIRONMENTAL MANAGEMENT SYSTEM

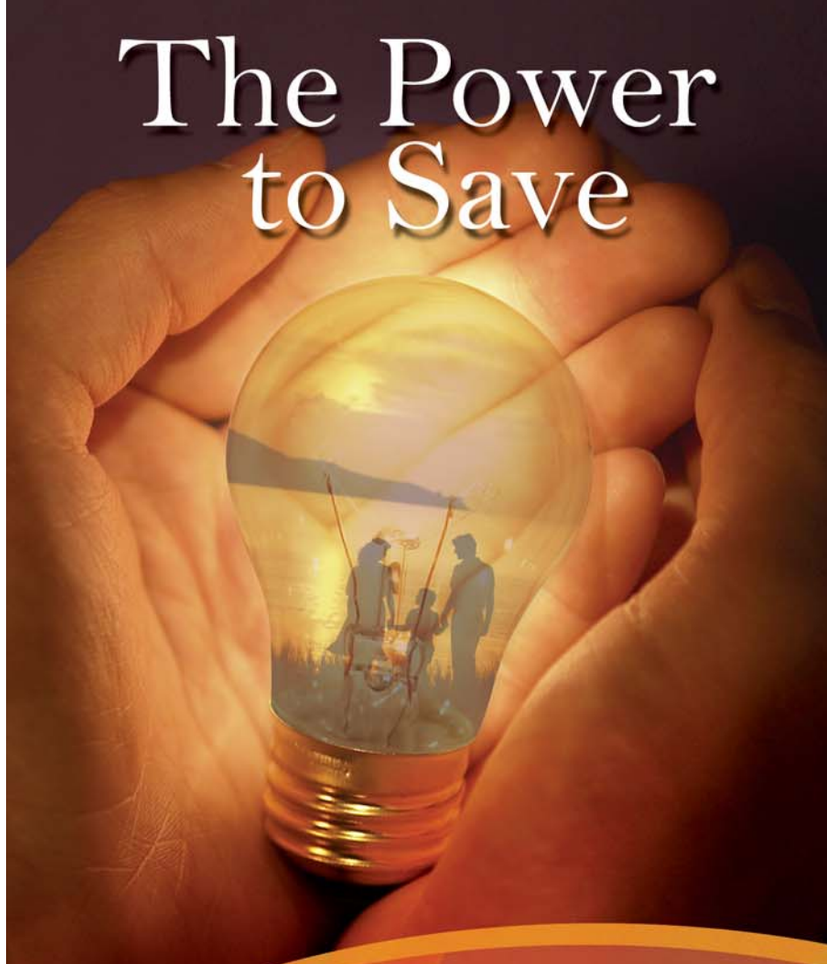
York Region

For general information contact:
energy@york.ca

or

The Regional Municipality of York
17250 Yonge Street, Newmarket
Ontario L3Y 6Z1

The Power to Save



ENERGY & ENVIRONMENTAL MANAGEMENT SYSTEM

York Region

The EEMS Energy Solution

The energy marketplace is constantly changing which makes it critical for municipalities to implement a solution that not only tracks energy performance and costs but also incorporates the unique environment and economic context of an organization. Although there are many off-the-shelf software products , they do not adequately address the unique needs of municipalities. York Region has taken the initiative and developed an Energy & Environmental Management System (EEMS).

EEMS is a versatile web based application designed by a municipality to specifically address the unique organizational structure and business requirements of municipalities. EEMS has the capability to track and report electricity, water and natural gas utility accounts as well as fuel usage for heating, power generation and fleet vehicles. In addition, EEMS tracks and provides reporting on environmental emissions generated through energy consumption by municipal facilities.

EEMS is your first step in developing a comprehensive energy management plan. With critical energy information at your fingertips, you can make informed conservation and demand management decisions.

Common Problems Municipalities Face

- Measurement of all municipal consumption
- Identification of inefficiencies
- Measurement of energy savings
- Concentration of conservation efforts
- Development of a comprehensive Energy Plan
- Environmental reporting requirements (e.g. PCP, NPRI…)

Purposeful Design

The EEMS energy solution was developed by a municipality to specifically address the unique business requirements of municipalities. EEMS provides important financial and technical information enabling the development of an energy procurement strategy. In addition, EEMS has incorporated key performance reporting indices and Ontario Municipal Benchmarking Initiative (OMBI) metrics that are relevant to municipal operations. Finally, the EEMS IT platform is designed to complement your existing IT infrastructure and easily interface with numerous IT legacy systems and data sources.

Environmental Emissions Tracking and Reporting

What separates the EEMS energy solution from other industry offerings is that it provides the capability to track and report on greenhouse gas and criteria air contaminant emissions generated through energy consumed by buildings, street and traffic lighting, water and wastewater operations, power generation and fleet transportation. Mandatory Environment Canada National Pollutant Release Inventory (NPRI) air pollutant emissions reporting require a municipality to report emissions on a facility basis if certain criteria are met. One way to identify facilities for reporting is by summing nameplate capacities of stationary combustion equipment (boilers, power generators). EEMS can provide the data required for emissions estimates while also making it very easy to determine whether a building has exceeded the reporting threshold for a contaminant. Another program that requires measurement and verification of municipally-generated greenhouse gas emissions is the Partners for Climate Protection (PCP). EEMS supports this 5 milestone program by categorizing municipal assets into PCP sectors allowing for further analysis of emissions data.

Flexible Cost-Effective Solution

The EEMS energy solution, based on the Microsoft SQL Server 2000 platform is a very flexible application which can be easily interfaced with existing IT legacy systems. Utility invoice information can be automatically uploaded into the system freeing up valuable time while creating cost synergies. EEMS applies multiple bill verification checks to each bill prior to it being loaded into the system. Billing anomalies are quickly identified and red flagged prior to loading in the database thereby allowing users to add "events" to further explain the anomaly. Once the data is imported into the system it is calendarized and normalized to correct for seasonal weather irregularities.

Award Winning Software

EEMS was awarded a national award - FCM-CH2M Hill Sustainable Community Award (in the Energy category).

EEMS AT A GLANCE

COST	
Purchase price	$20,000 CAD
Annual Enhancement Program (optional)	$2,000 CAD
DATA IMPORT	
Automatic e-billing file upload (monthly utillity bill data)	•
Automatic / manual utility bill entry	•
Verification of data acquisition consistency/integrity	•
DATA EXPORT	
Data export to a variety of formats (crystal reports, excel, word, pdf)	•
SOFTWARE PLATFORM	
SQL Server	•
Internet	•
Variety of security access levels (e.g. view-only, administrator)	•
Application Outsourcing (hosting/support)	•
User-friendly and easy to commission	•
Search/query function to filter and sort data	•
Account master data management (create, edit and delete)	•
Event-related functionality to document anomolies (create, edit and delete)	•
User Levels (administrator, power user, user)	•
MONITORING AND ANALYSIS	
Electricity (cost and consumption)	•
Water (cost and consumption)	•
Natural gas (cost and consumption)	•
Fuels for heating buildings / power generation (cost and consumption)	•
Fleet fuels (gasoline, propane, diesel)	•
Performance Indices - Buildings (e.g. $/ft^2)	•
Performance Indices - Transportation (e.g. $/100km, CO2 kg/100km)	•
Performance Indices - Street & Traffic Lighting (e.g. kwh/luminaire)	•
Performance Indices - Water & Wastewater (e.g. $/m^3)	•
Multi-level energy information (e.g. building, departmental, corporate)	•
Various reporting durations (monthly, annual)	•
Weather correction (heating / cooling degree days)	•
Billing period correction "calendarization"	•
Baseline model (historical trend analysis)	•
Ranks facilities in terms of performance	•
Annual energy savings	•
Annual emissions generation	•
Annual emissions reductions	•
Compare historical data between different locations	•
Building information (e.g. heating sources, capacity)	•
Bill verification	•
Budget forecasting tools	•
Cost allocation	•
Energy management tools	•
REPORTS	
Consolidated reports	•
Tables	•
Graphs	•