

<p style="text-align: center;">Collingwood General and Marine Hospital</p> <p style="text-align: center;">STRATEGIC ENERGY MANAGEMENT PLAN (SEMP)</p> <p style="text-align: center;">2014 - 2015</p>

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Introduction

The purpose of the Collingwood General and Marine Hospital's (CGMH) energy management plan and policies is to promote good stewardship of our environment and community resources. In keeping with our vision and mission statement, CGMH's energy management program will help to contain rising operating costs and enable us to provide compassionate service to the people of our community.

Utility and energy related costs are a significant part of overall annual operating expenses:

- Utility costs in 2013 totaled \$572,022;
- Water costs in 2013 totaled \$23,240;
- Sewer costs in 2013 totaled \$33,732.

Recent activity associated with managing these costs include the following:

- Formation of a Green Team to raise awareness with stakeholders.
- Steam trap survey to be conducted this fall.
- Collaborate with Enbridge Gas's Run It Right initiative
- Make a business case for LED parking lot lighting and perimeter lighting.
- Review LED light usage in the Hospital corridors to reduce cost/consumption and load on emergency generator.
- Work with our energy procurement agent (ECNG) to accurately forecast future costs and potential cost avoidance.

To further strengthen and obtain full value from energy management activities, a strategic approach will be taken: the organization will fully integrate energy management into its business decision-making, policies, and operating procedure.

Energy Management

VISION:

Our vision is to be a high performing, patient-focused hospital serving our community by providing quality and excellence in patient care. We will strive to be a leader among peers by providing essential services founded on best practices, resourced with appropriate technology and delivered by a qualified, motivated, caring team. We will work to provide timely access to care and facilitate seamless care for our patients in collaboration with partners within and beyond the hospital.

MISSION:

A dedicated team committed to your health and our community.

VALUES:

Six core values will govern our actions and decisions in ensuring mission effectiveness and the realization of our vision:

- | | |
|--------------------------------------|-------------------------------------|
| <input type="checkbox"/> Caring | <input type="checkbox"/> Excellence |
| <input type="checkbox"/> Accountable | <input type="checkbox"/> Adaptable |
| <input type="checkbox"/> Respect | <input type="checkbox"/> Teamwork |

Guiding Principles for Strategic Energy Management

CGMH's energy management will be guided by these principles:

Taking A Strategic Approach: While CGMH actively manages energy costs by implementing opportunities as they are identified, by acting strategically, CGMH can significantly improve its energy-related performance. Internalizing energy management into our organization's every-day decision-making, policies, and operating procedures will help assure substantial and long-lasting reductions in energy use throughout CGMH.

Supporting Mission-Critical Goals: Strategic energy management will directly support CGMH's mission-critical goals of caring for the environment and the community; optimizing the healing and working environment; improving the hospital's financial bottom line by reducing unnecessary energy costs; optimizing the capacity of existing energy systems to meet current and expanding operational needs. The impacts of CGMH's energy management efforts on those goals will be tracked and reported wherever possible.

Pursuing Long-Term Change to Core Business Practices: The core of a strategic approach is the consistent incorporation of energy management into our organization's core practices and decision-making such as the strategic planning and budgeting processes. Change in energy-related business practice will cover all applications of energy management – new construction and major renovations, existing facility operations and upgrades, and the economic analysis and procurement practices underlying these practices.

Fostering Organizational Commitment and Involvement: Executive and organizational commitment and involvement is critical to successful strategic energy management. Top management at CGMH will work with facility managers and other key staff to ensure that adequate organizational support and resources are provided to maximize the benefits of energy management to CGMH energy management will be integrated into the strategic planning and capital budgeting processes.

Obtaining Solid Economic Returns: Energy management investments will yield solid economic returns that meet CGMH's Internal Rate of Return, Return on Investment, standard requirements applied through the hospital's capital budgeting process. CGMH will apply consistent financial analysis methods that consider life-cycle to reduce total cost of facility ownership and operation.

Using Available Resources and Assistance: Use national, regional, and local sources of strategic, technical, and financial assistance to help achieve our energy management goals. These include utilities, government

The Business Case for Strategic Energy Management

Below are the central business arguments for CGMH's pursuit of strategic energy management. Section VI then presents the business proposition – the results of analysis of the energy efficiency opportunities and their associated costs and internal rate of return.

Strengthened Community Leadership and Environmental Stewardship

Energy management is a visible, public commitment to the community and environment. Through aggressive energy management, the hospital can provide leadership in promoting sustainable communities, efficient business practices, and environmental stewardship. Faced with a tough market environment, this is an excellent opportunity to provide leadership and reduce costs at the same time.

Enhanced Healing and Working Environment

In existing facilities, efficient operating practices improve patient as well as employee comfort with more stable air temperature, and better indoor air quality and lighting. In new facilities more daylight and personal control of comfort contribute to a healing and patient-focused environment, and an improved working environment.^{2,3} Recent research has found that daylight eases surgical pain and contributes to substantial savings in pharmacy costs.⁴

Improved Financial Health and Operating Cost Reduction

Strategic energy management presents a highly leveraged opportunity to reduce operating costs and positively impact CGMH's bottom line. Dollars of operating cost savings directly improve the operating budget. Further, investments in energy projects typically have a lower risk of performance over time relative to other investments and savings from energy projects are easier to forecast reliably than savings or revenue increases expected from more variable investments.

Optimization of Capacity to Meet Current and Expanding Operational Needs

Energy efficiency optimizes inefficient or poorly designed and operated equipment/systems so wasted energy system capacity can be reclaimed for current and expanding operational needs. This "free capacity" can eliminate the need to add major new energy capacity and be much less expensive.⁵

² Turnover among hospital nurses averages about 20 percent per year and it can cost a hospital up to \$64,000 to replace one nurse. (Kemski, Ann, Market Forces, Cost Assumptions, and Nurse Supply: Considerations in Determining Appropriate Nurse to Patient Ratios in General Acute Care Hospitals R-37-01, SEIU Nurse NEEA, December 2002 and Center for Healthcare Design Issue Brief).

³ Bronson Methodist Hospital's new facility in Kalamazoo, which opened in 2000, has incorporated many of the attributes of high performance hospitals. The turnover rate among registered nurses has dropped from 20 percent at the old facility to 7 percent in the new and there has been a 10 percent drop in nosocomial infection rates. There has been a decrease in patient transfers and a reported increase in patient sleep quality. (Center for Healthcare Design Issue Brief.)

⁴ A 2004 study by the University of Pittsburgh showed that patients in rooms with abundant natural light took less pain medication than equally ill patients assigned to darker rooms. This resulted in a reduction in medication costs of 21 percent for the hospital. The patients also reported lower stress levels and less pain.

Business Proposition

- If energy management considerations are integral to relevant business practices, policies, procedures, and decision-making processes, CGMH's energy-related costs can be reduced by 10% over a 5-year period.⁶
- Integration of energy management into organizational decision making and business practices will continue to produce value annually for a much longer period of time.

Energy Management Goals⁷

- SEMP Approval, Resources to Implement⁸
- Implement Financial Practices and Decision Making Processes; Establish Funding Resources⁹
- Implement Strategic Energy Management Practices¹⁰
 - Purchasing/Procurement Procedures and Specifications
 - Enhanced Design & Construction Practices
 - Enhanced Facility Operating Practices
 - Cost-Effective Facility Upgrades
 - Active Commodity Management
- Monitoring, Track, & Improve Performance¹¹

Goal: SEMP Approval, Resources to Implement

- Executive approval and resources.
- Support from key staff (financial management, purchasing/procurement, construction, building operations, etc.).
- Creation of mechanisms/processes to make resources available.
- Clarification and communication of staff roles and responsibilities, performance goals, and energy management reporting.

Goal: Implement Financial Practices and Decision Making Processes

- Money spent to achieve energy efficiency is viewed as an investment, not a cost.
- Decisions about energy management investments will be part of CGMH's high-level, long range process of budgeting for capital and operations.

Goal: Establish Purchasing Specifications for Energy Efficient Equipment and Services

- Establish and consistently use purchasing specifications that minimize life-cycle costs for energy efficient equipment and services.

⁶ As an example, a SEMP approved in 2006 had the following business proposition: Utility costs: Approximately \$3.8 million annually. Energy use reduction: An additional 18 percent over a 5 year period. Represents \$3.25 million to bottom line or the equivalent of an additional \$100 million in revenue at a 3.2% net operating margin. Investment in energy efficiency: Up to \$2,000,000 in energy-related capital and operating improvements, meeting and Internal Rate of Return (IRR) of 16% or better over the 5-year period (2005-2010).

⁷ The sample goals and objectives in the SEMP template start with Step 4 of the SEMP process described in the website. This assumes that the first three goals have been achieved (Step 1: Gain Initial Organizational Support for Strategic Approach; Step 2: Assess Current Energy-Related Business Practices and Benchmark Facility; Step 3: Develop Strategic Energy Management Plan).

⁸ Step 4 of SEMP process.

⁹ Step 5 of SEMP process.

¹⁰ Step 6 of SEMP process.

¹¹ Step 7 of SEMP process.

- Establish efficiency specifications for standard equipment routinely replaced (e.g. lights, motors, and unitary HVAC equipment)..
- Establish efficiency standards for design and construction, and for building operations and maintenance services.

Goal: Improve Building Operating Performance

- Equipment tune-up and improved operations and maintenance (O&M) will achieve the following results while supporting patient care, and facility comfort and safety.
 - Achieve reductions in operating costs for existing facilities.
 - Reduce energy consumption to provide yearly operational savings.
 - Use improved ENERGYSTAR rating devices as part of the procurement process.

Goal: Implement Cost-Effective Facility Upgrades

- Implement equipment and system upgrades where justified by life-cycle cost analysis.
- Expand use of qualified service providers as needed. Develop standard RFP documents, contract terms, and reporting standards.

Goal: Actively Manage Energy Commodity

- Minimize utility costs and exposure to market risks. Utility costs include natural gas, electricity, water, and sewer.
- Participate in the energy/utility regulatory process.

Goal: Monitor, Track, and Reward Progress

- Track progress on SEMP
- Track energy savings quarterly
- Reward staff for successes