



**MICs Group of Health Services
ENERGY CONSERVATION AND DEMAND MANAGEMENT
(CDM) PLAN**

2024 to 2029

***Anson General Hospital
Bingham Memorial Hospital
Lady Minto Hospital***

MICs Group of Health Services

STRATEGIC ENERGY MANAGEMENT PLAN (SEMP) FOR 2024 TO 2029

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Introduction

The purpose of The MICs Group of Health Services energy management plan and policies is to promote good stewardship of our environment and community resources. In keeping with our core values of Accountability, Quality, Integrity, and Respect. The MICs Group of Health Services energy management program will reduce operating costs and enable us to fulfill our vision to “provide quality care for everyone always” for the MICs communities by facilitating the right care, at the right place and the right time.

Today, utility and energy related costs are a significant part of overall operating costs. Organizational capital project costs, which would potentially improve energy conservation, are projected at approximately \$8 million over 5 years. Some of these projects may include:

- Replacement of kitchen appliances
- Fridge and/or freezer refurbishment
- Replacement of exhaust fans and upgrades to Air Handling Units
- Hot water tank replacements
- Continued lighting upgrades
- Replacement of additional exterior doors and windows

With energy management an integral part of business decisions, The MICs Group of Health Services can expect the following:

- Reduction in energy use while maintaining our services and patient satisfaction
- Savings annually to the bottom line
- Energy investments will get a Board and Senior Management approved internal rate of return (IRR)

Recent activity associated with managing these costs include the following

- Continuing upgrades of Building Automation systems
- Replacement of exterior parking lot and heliport lighting with LED lamps
- Combining resources to reduce operating equipment for MDRD
- Replacement of exterior doors and windows
- Upgrade of inefficient cabinet heaters

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

Active management of energy related costs and risks in this manner will provide a significant economic return to the organization and will support other key organizational objectives.

Results of Previous Measures from CDM Plan Posted July/2019

In July 2019, MICs Group of Health Services developed new goals and devised green initiatives in an effort to decrease the facilities annual energy consumption and resulting greenhouse gas emissions. The following activities, completed between 2019 and 2024, are associated with managing overall energy consumption, lowering annual operating costs, and reducing greenhouse gas emissions. These activities may, or may not, have been included in the MICs Group of Health Service's 2019-2024 CDM plan. MICs Group of Health services has reduced its kWh rating by over 200,000kWh since 2019 and reduced its natural gas consumption by over 100,000 m³.

MICs Group of Health Services Energy Consumption Summary

	2019	2020	2021	2022	2023
Power (kWh)	4,049,871.00	3,895,509.00	3,771,266.90	3,732,694.00	3,832,664.00
Natural Gas (M3)	982,958.00	972,017.00	901,130.00	970,034.00	851,782.00

These results were made possible through the following projects:

- Exterior LED Lighting Upgrade (completed in 2023)
- Energy efficient window and door replacements (completed in 2023)
- Replacement of cabinet heaters (completed 2024)
- Boiler replacement (completed 2023)
- Employee Engagement Program – 12 months of green (completed 2020)

MICs Group of Health Services signed a \$5 million dollar, 5-year contract, with Honeywell in 2019 creating our Energy Renewal Program. The program is currently ongoing and working with Honeywell, we have accomplished the following project related to energy conservation:

- Air Handling Unit Upgrades
- Chiller Upgrades
- Gas fired humidifier upgrades to reduce steam boiler consumption
- Washing machine ozone equipment to reduce hot water consumption
- Plumbing fixtures upgraded to low-flow as part of a water conservation program

A data verification report with the results of the Energy Renewal Program will be posted on the MICs Group of Health Services website once it has been finalized.

Energy Management Vision

The MICs Group of Health Services mission statement is 'Partnering to deliver excellent health care for our communities.'

We consider our facilities as a primary source of giving care and an important part in the healing process. A key component is the ability to maintain and operate our facilities efficiently and effectively. By reducing our energy costs, we will be able to direct more

resources to direct client care. In working to lower these costs, we are also reducing our environmental footprint to create a healthier environment.

Our energy management mission is to eliminate energy waste by policy, procedures or infrastructure improvements wherever possible and embracing best practice and technology changes.

Guiding Principles for Strategic Energy Management

The MICs Group of Health Services energy management will be guided by these principles:

Taking a Strategic Approach: While The MICs Group of Health Services actively manages energy costs by implementing opportunities as they are identified, by acting strategically, MICs Group of Health Services 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 the MICs Group of Health Services.

Supporting Mission-Critical Goals: Strategic energy management will directly support the MICs Group of Health Services mission-critical goals of caring for the environment and for the community by optimizing the healing and working environment; improving the hospital's financial bottom line by reducing unnecessary energy costs; and optimizing the capacity of existing energy systems to meet current and expanding operational needs. The impact of the MICs Group of Health Services 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 MICs Group of Health Services 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 the MICs Group of Health Services. 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 The MICs Group of Health Services standard Internal Rate of Return and Return on Investment requirements applied through the hospital's capital budgeting process. The MICs Group of Health Services will apply consistent financial analysis methods that consider life cycle and energy rating 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 local utilities, government programs, Canadian Healthcare Engineering Society, Ontario Power Authority and EnerCan.

The Business Case for Strategic Energy Management

Below are the central business arguments for the MICs Group of Health Services pursuit of strategic energy management. Following that, 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 MICs Group of Health Services can provide leadership in promoting sustainable communities, efficient business practices, and environmental stewardship. 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, better indoor air quality, and lighting. Research has found that daylight eases surgical pain and contributes to substantial savings in pharmacy costs.

Improved Financial Health and Operating Cost Reduction

Strategic energy management presents a highly leveraged opportunity to reduce operating costs and positively influence the MICs Group of Health Services bottom line. Dollars of operating cost savings directly improve the operating margin. 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 investments that are more variable.

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.

Business Proposition

- If energy management considerations are integral to relevant business practices, policies, procedures, and decision-making processes, the MICs Group of Health Services energy-related costs can be reduced over a 5-year period.
- Integration of energy management into organizational decision-making and business practices will continue to produce value annually for a much longer period of time.
- To support the achievement of these financial benefits, MICs Group of Health Services has extended its contract with Honeywell Energy & Facility Renewal to continue working on both our Energy Renewal and Power Factor Correction. This will help us continue meeting an Internal Rate of Return (IRR) that is acceptable to the Board of Directors and Senior Management.

Energy Management Goals

- Continue to meet targets and goals based on Energy Performances baselines for all MICs Group of Health Care Facilities and to establish achievable targets and goals each year.
- Continue the Employee Engagement Program to educate Team Members to consider Energy Management in their daily routines, i.e. turning off lights, computers, using bottle filling stations, etc.
- Implement Financial Practices and Decision Making Processes; Establish Funding Resources
- Implement Strategic Energy Management Practices
 - Purchasing/Procurement Procedures and Specifications
 - Enhanced Design & Construction Practices
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Goal: Establish New Utility Baselines for each of our facilities

- Review annual utility usage and establish new targets for each facility

Goal: Educate Team Members

- Provide education to Team Members on the use of our utilities and how to make savings a common practice in the day to day operations
- Utilize the internal newsletter to get this information out to all staff each month.

Goal: Energy Conservation and Demand Management Plan Approval

- Executive approval and resources to support initiatives
- 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.
- Financial decision makers consistently use life cycle cost analysis (LCCA) on all new construction, major renovations, and equipment replacements over lowest cost.
 - Internal rate of return (IRR) as approved by the board
 - Train staff on life cycle cost analysis and financial requirements and decision-making process.
- Decisions about energy management investments will be part of The MICs Group of Health Service 5 year capital budget planning process

Goal: Utilize Purchasing Specifications for Energy Efficient Equipment and Services

- Consistently use purchasing specifications that minimize life-cycle costs for energy efficient equipment and services.
 - Establish efficiency specifications for standard equipment routinely replaced (e.g. lights, motors, and unitary HVAC equipment).
 - Consideration given to ENERGYSTAR Rating when making new equipment purchases.
 - Establish efficiency guidelines that apply LCCA for custom equipment purchases (e.g. chillers).
 - Establish efficiency standards for design and construction, and for building operations and maintenance services.

Goal: Implement Enhanced Design & Construction (D&C) Practices

- Make use of improved new construction practices in all projects that specify early team collaboration and “integrated design” (ID).
 - Integrated design required for funding.
 - RFPs, contract terms & conditions, & fee structures will support ID.
 - Apply LCCA and financial hurdle rates described above to design decisions.
 - Apply established purchasing procedures and specifications.
 - Include incentives and tax credits wherever available.
 - Educate all owner’s, project or construction managers, and contractors on integrated design and their respective roles in master planning pre-design, design, construction, testing, commissioning, and monitoring.
- Set and meet clear energy performance targets for new buildings; measure and improve over time.
 - Establish baseline for measuring performance goals (e.g. code, or national reference standards like ASHRAE 90.1).
 - Set targets for improvements
 - Measure performance and improve over time.
- Specify commissioning as a standard procedure.
 - Retain the services of an independent third-party commissioning agent.
 - 100 percent of fundamental building systems and elements will be designed, installed, and calibrated to operate as designed.
 - Design team, commissioning agent, and building operators will work closely throughout the design process and occupancy to ensure good transition.

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 in the next 5 years and continue to improve each year thereafter years thereafter.
 - Reduce the system-wide Energy Use Index (EUI). The EUI will be adjusted for variances in patient days and IT intensity.
 - Reduce energy consumption.
 - Improve ENERGYSTAR rating

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 CDM plan
- Track energy reductions annually.
- Reward staff for successes.

Timeline and Responsibilities for Plan Adoption and Implementation

Over the next 5 years, MICs Group of Health Services will continue to monitor its energy consumption and strive to continue to meet the goal of reducing consumption annually. By moving forward with a number of the organization's projected capital projects in the next few years, we should continue to see improvement in reducing the energy required by our facilities.