

Royal Victoria Regional Health Centre

ENERGY CONSERVATION AND DEMAND MANAGEMENT (CDM) PLAN

2024 – 2029



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Introduction

As per the Ontario Regulation 25/23, all public agencies shall prepare, publish, implement, and make available the energy conservation and demand management plan.

The purpose of Royal Victoria Regional Health Centre's (RVH) energy conservation and demand management (CDM) plan and policies is to promote good stewardship of our environment and community resources. In keeping with our core values and efficiency, concern for the environment, and fiscal responsibility, Royal Victoria Regional Health Centre's energy CDM program will reduce overall energy consumption, operating costs, and greenhouse gas emissions. It will also enable us to provide compassionate service to a greater number of persons in our community.

Today, utility and energy related costs are a significant part of the overall operating costs. For information on RVH's annual energy consumption 2019 – 2023, **See Appendix A.**

To further strengthen and obtain full value from energy management activities, RVH's strategic approach will fully integrate energy management into its business decision-making, policies, and operating procedures.

Active management of energy related costs and risks 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, Royal Victoria Regional Health Centre developed goals and devised green initiatives to decrease the facilities annual energy consumption and resulting greenhouse gas emissions. The following activities, completed between 2019 and 2024, are associated with managing the overall energy consumption, lowering annual operating costs, and reducing greenhouse gas emissions. These activities include the following:

Past CDM measures

2020/21: Implemented an occupancy set back program in the Simcoe Muskoka Regional Cancer Centre (SMRCC) at an estimated cost of \$40,000 and potential savings of \$40,000.

2020: Installed Variable Frequency Drive (VFD's) on 4 Air Handling Units (AHU's) and then will rebalance the air to areas they supply in the original Building at an estimated cost of \$25,000 and possible savings of \$40,000 per year.

2024: Performed steam trap audit of steam plant and ancillary equipment. Actions taken from this audit resulted in recovery of 473 tons/year of CO2 emissions.

2024: Completed a trial on 10 Air Handling Units focused on the treatment of heat transfer coils within our HVAC equipment. Results of this trial showed an annual savings of 152,451 kwh which corresponds to offsetting 135.4 tons/year of CO2 emissions.

Energy Management Vision

We live by our purpose “Making life better, with the care you need, close to home” and we achieve this by believing in our core values. Our “Energy Management Vision” embraces these values as well as finding and acting on energy saving opportunities, ensuring our facility operates efficiently and effectively by implementing sustainable maintenance practices while being good stewards to our environment.

Guiding Principles for Strategic Energy Management

RVH's Strategic Energy Management will be guided by the following principles.

Taking A Strategic Approach

While RVH actively manages energy costs by implementing opportunities as they are identified, by acting strategically, RVH 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, operating costs, and environmental impact.

Supporting Mission-Critical Goals

Strategic energy management will directly support RVH's mission-critical goals of caring for the community and the environment, improving the healing and working environment, and improving the health centre's financial bottom line by reducing unnecessary energy costs. It will also serve to optimize the capacity of existing energy systems to meet current and expanding operational needs, while improving the operational resiliency of the organization. The impacts of RVH's energy management efforts on those goals will be tracked and reported.

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 everyday practices and decision making. It also needs to be an integral part of 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.

Fostering Organizational Commitment and Involvement

Executive and organizational commitment and involvement is critical to successful strategic energy management. Top management at RVH 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. Energy management will also be integrated into the strategic planning and capital budgeting processes.

Obtaining Solid Economic Returns

Energy management investments will yield solid economic returns that meet RVH's standard Return on Investment (ROI) requirements applied through the hospital's capital budgeting process. RVH will apply consistent financial analysis methods, including life-cycle costing, to reduce total cost of facility ownership and operation.

Using Available Resources and Assistance

Use of national, regional, and local sources of strategic, technical, and financial assistance will help to achieve the organization's energy management goals. These include utility, municipal, provincial, and national government programs. It also includes established best practice.

Our Energy Management Goals

2024: Implementation of Steam Trap Insulation Jackets throughout steam plant and ancillary equipment. The addition of Insulating Jackets will result in the equivalent of 16,874 M³ natural gas saved / 31.0 metric tons CO₂ sequestered with an annual cost savings of \$7,593.

2024-29: Continued treatment of AHU Coils to increase efficiencies of heat transfer and air flow, improving system performance while reducing energy costs and carbon emissions.

2024-29: Ongoing strategies to reduce RVH's energy use intensity to align with our peer Hospitals. Which may include but not limited to installation of additional energy efficiency valves to optimize current cooling systems.

2024-29: Engage energy efficient consultants to realize RVH's defined outcomes as it relates to reducing greenhouse gas emissions, reducing global adjustment costs, and carbon footprint through a community of practice approach.

Appendix A



